

***Sencillamente
el mejor sistema
para las empresas
en ascenso***

• 8 6 2 3 4 5 6 • 7 8 9 10 11 12 •



*¡Después de tener un Norstar a su
alcance, jamás lo soltará!*



Teléfono M7208

- Pantalla LCD de 16 caracteres
- 8 teclas programables con indicadores
- Acceso a todas las funciones del Norstar, inclusive:
 - Envío de mensajes internos
 - “Manos libres” en cada aparato
 - Marcado rápido del sistema para 70 números
 - Atención de llamadas para una mejor cobertura de llamadas

M7324 con Módulo PPR

- La adición de 1 ó 2 módulos PPR le permite incrementar su capacidad de manejo de llamadas en los aparatos con facilidad.
- Los indicadores de los módulos PPR le muestran el estado del aparato a simple vista
- Las llamadas pueden ser transferidas directamente o anunciadas antes de su transferencia
- Acceso a todas las funciones del Norstar, inclusive:
 - Transferencia retrasada de la llamada para retransmitir las llamadas no contestadas a otro teléfono
 - Señalizador de línea retenida para no “olvidar” llamadas
 - Emisión de anuncios a través de los aparatos telefónicos, altoparlantes o ambos con sólo presionar una tecla

***Nota:** Las funciones descritas en este folleto corresponden al Norstar modular versión de 128 entradas.

Sencillamente el mejor

La Northern Telecom se dedica exclusivamente al desarrollo de productos de telecomunicaciones de calidad. Cuando usted elige un Meridian Norstar, se lleva un sistema en el cual puede confiar no sólo hoy sino por muchos años más.



Meridian y Norstar son marcas registradas de Northern Telecom.

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Teléfono M7324

- Pantalla LCD de 16 caracteres en 2 líneas con teclas dinámicas
- 24 teclas programables con indicadores
- Las teclas dinámicas le permiten escoger la siguiente opción seleccionable
- Acceso a todas las funciones del Norstar, inclusive:
 - Retransmisión de llamadas a cualquier aparato
 - Excepción ejecutiva desde cualquier aparato
 - Conferencias internas y externas
 - Marcado rápido personal de hasta 24 números

Teléfono M7310

- Pantalla LCD de 16 caracteres en 2 líneas con teclas dinámicas
- 10 teclas programables con indicadores
- 12 teclas con memoria de doble función
- Acceso a todas las funciones del Norstar, inclusive:
 - Llamadas con prioridad con opción de bloqueo
 - Repetición del último número marcado
 - No interrumpir
 - Numeración flexible para las extensiones



Teléfono M7310 con campo indicador de ocupación

- Crea la posición de operadora con un campo indicador de ocupación
- Se distingue a simple vista cuáles teléfonos están ocupados y quién está libre para recibir una llamada
- Las funciones devolución de llamadas/lista de espera garantiza que se responda a todas las llamadas estacionadas y transferidas, en secuencia, dentro de un lapso específico
- Acceso a todas las funciones del Norstar, inclusive:
 - Lista de espera para las líneas externas
 - Repetición de llamada interna en estado "ocupado/no contesta"
 - Estacionamiento de llamadas con devolución automática de llamadas
 - Servicio nocturno flexible para una cobertura total de las llamadas



Ningún otro sistema le ofrece tanto como Norstar

Simplicidad

- Su pantalla LCD (pantalla visual de cristal líquido) le permite lograr una interacción instantánea: llamadas, mensajes, y le ayuda incluso en el uso del teléfono.
- Un manual del usuario conciso y fácil de leer acompaña cada unidad.

Manejo excepcional de las llamadas

- Gracias a las funciones de Norstar es prácticamente imposible perder una llamada o no obtener respuesta.
- Las funciones de envío de mensajes y repetición de llamadas le evitan entrar en un "Ciclo vicioso de llamadas sin contestar".
- Puede usarse con cualquier número de teléfonos para atender a llamadas entrantes.

Funcionalidad incorporada

Las funciones que resultan opcionales en algunos sistemas telefónicos son básicas para Norstar:

- Contestación con manos libres en intercomunicación.
- Pantalla LCD con ajuste de contraste.
- Conector para auricular.
- Control de volumen en el manófono, auricular, parlante y timbre.
- Reubicación automática del aparato que le permite mover su teléfono sin necesidad de reprogramar sus funciones†.
- Soporte incorporado para su instalación en la pared.

† no se recomienda para el M7324 adosado con módulos PPR

Flexibilidad

- El sistema puede adaptarse a sus necesidades particulares.
- Es posible realizar cualquier combinación de líneas y funciones en cualquier aparato.
- Se puede programar cada aparato para que facilite el acceso a las funciones más usadas con sólo presionar una tecla.



Protección contra el desuso

- Los cartuchos de software permiten avanzar a la par de los adelantos en el desarrollo de las funciones del Norstar.

Multifuncional

- Funciones de interacción diseñadas para satisfacer las necesidades de comunicación del mundo empresarial.
- Acceso a todas las funciones a través de cualquier aparato Norstar.

Calidad de la voz

- La tecnología digital proporciona una calidad de voz excepcional.
- Incluso con el manos libres, la calidad del sonido de Norstar es sin duda superior.

Fácil de adaptar a sus necesidades particulares

- Adaptar su sistema a sus necesidades específicas o ampliarlo es tan fácil como agregar módulos de líneas troncales y módulos de aparatos telefónicos.

Aplicaciones a los sistemas de datos

- La capacidad de interacción de Norstar le permite formar redes con cualquier otro tipo de tecnología empresarial.

¡Por fin! ¡Las funciones por las que usted pagó son ya fáciles de usar!

Personalize sus llamadas

Nombres de los usuarios programables

- Las líneas o aparatos telefónicos pueden programarse por nombre o número.



- Su flexible sistema de numeración le permite asignarle cualquier número de hasta 4 dígitos a cualquier aparato.

No pierde llamadas importantes

Información sobre llamadas cuando está "ocupado"

- Si usted está recibiendo una llamada interna o externa, Norstar le avisa si hay otra llamada esperando.
- En las llamadas internas, la persona que llama aparece identificada en su pantalla LCD.

Mejora el manejo de llamadas

Teclas contestadoras

- Para asegurar que no se deje de contestar ninguna llamada, Norstar le permite responder las llamadas que repican en otros teléfonos de su Grupo Contestador (a excepción de las líneas privadas).
- La pantalla LCD le permite responder correctamente la llamada.

Ahorra tiempo

Llamada estacionada con devolución de llamada

- La pantalla LCD le permite recuperar una llamada estacionada directamente desde cualquier otro teléfono de su sistema.



Facilita la emisión de anuncios

Anuncio por Parlantes

- Con sólo presionar una tecla, usted puede emitir un anuncio a través del parlante de cada aparato, por un altoparlante auxiliar, o ambos.



Empleo más productivo de su tiempo

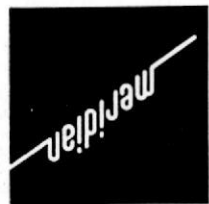
Repetición de llamadas en líneas

- Si todas las líneas salientes están ocupadas, la función de repetición de llamadas le avisará cuando una línea quede libre.

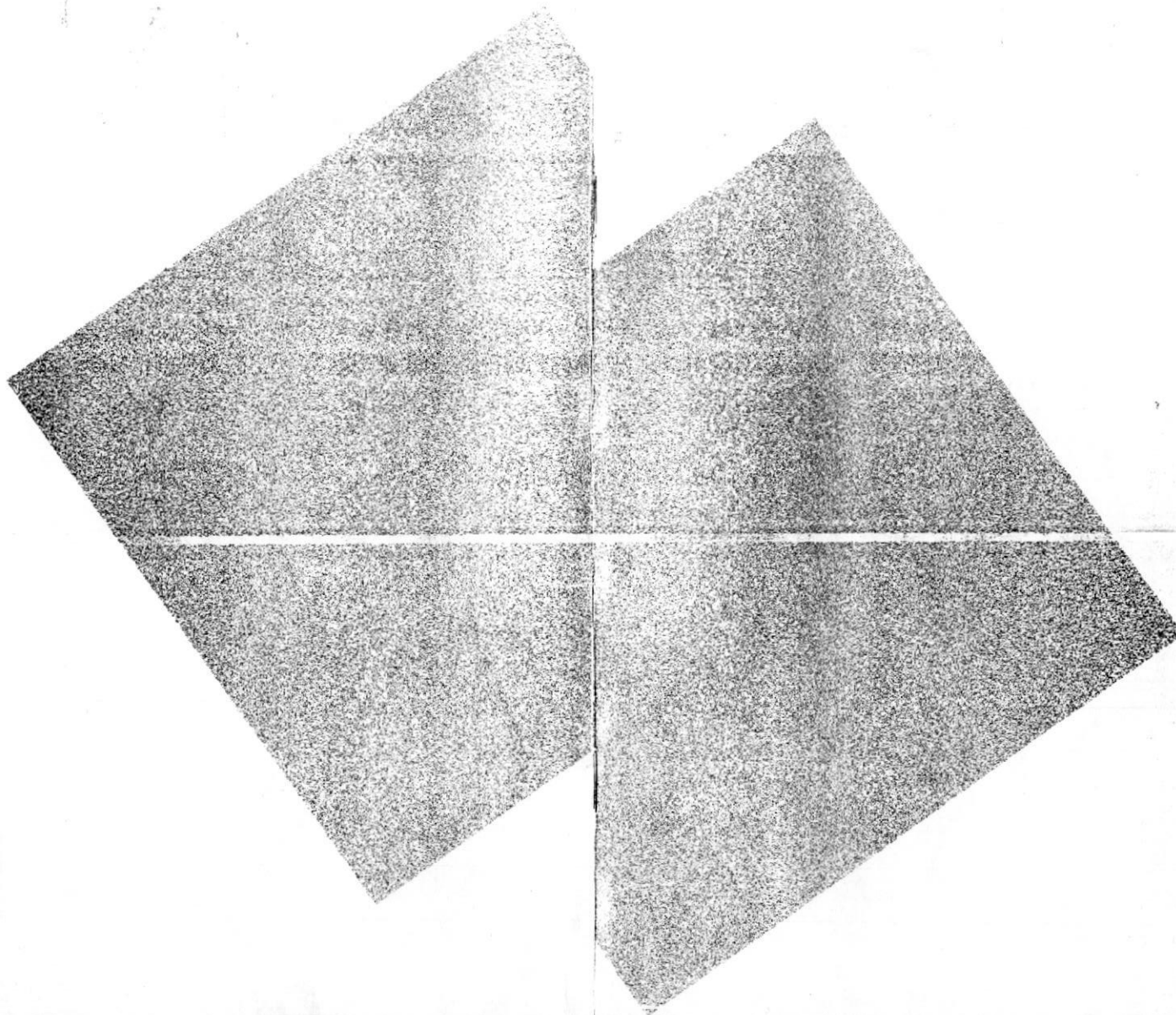


NORSTAR STAR TALK

- 385 INSTALLATION GUIDE
- 110/165 INSTALLATION GUIDE
- REFERENCE GUIDE



**Norstar
StarTalk
385
Installation
Guide**



**Norstar
StarTalk**

**110/165
Installation
Guide**

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This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations for the Canadian Department of Communications.

FCC Regulations

Radio Frequency Interference

Warning: This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules and CSA specification C108.8, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required at his own expense to take whatever measures necessary to correct the interference.

CAUTION: The StarTalk Module contains fragile electronic parts. It weighs 18.75 kg (approximately 41 lbs). **DO NOT DROP OR BUMP THE MODULE.**

In the event of equipment malfunction, all repairs will be performed by Northern Telecom or by one of its authorized dealers.

Address of repair facilities

USA:
Northern Telecom Inc.
Product Service Center
720 Massman Drive
Nashville, TN
37210
Attn. RA# _____

Canada:
Northern Telecom Canada Ltd.
Telecom Service Division
30 Norelco Drive
Weston, Ontario
M9L 2X6

Introduction

StarTalk is available in three different models: 110, 165, 385. The first two are packaged in the same hardware and are installed in the same manner. These three models differ only in the number of channels/ports available and the number of minutes in the message storage pack.

The first two models have the following features:

2 channel/1 port 110 minute message storage pack

or

4 channel/2 port 165 minute message storage pack

These models can be easily identified by the AC power cord outlet located at the bottom of the StarTalk Module. The difference between the two and the four channel model can be identified by the presence of one or two Teladapt jacks on the right hand side of the StarTalk Module.

The third model has the following features:

4 channel/2 port 385 minute message storage pack

This model can be easily identified by the AC power cord outlet located on the right hand side of the StarTalk Module. **Note:** The StarTalk Module front and side covers must be removed to determine the model type.

Important: This section of the installation Guide covers the procedures required to install the 385 minute message storage pack model. For instructions on installing the 110 and 165 minute message storage pack models, please turn this Guide over and read the other side.

Ports vs Channels

The StarTalk Module is connected to the Norstar KSU through the Station Ports. Because Norstar is a digital system, each station port is capable of having either two voice, two data, or a voice and data conversation simultaneously. The two voice or data channels are referred to as the B1 and B2 channels. StarTalk uses the B1 and B2 channel capability of each Norstar Station port. This provides StarTalk with the capability of handling two calls simultaneously on each port.

**Before
You Start**

- ☐ Read this Guide.
- ☐ Make sure the environment and electrical conditions are met. An Environment and Electrical Check List is provided on pages 3 and 4 of this Guide.
- ☐ Make sure all the equipment in the package is accounted for. A Package Check List is provided on page 4 of this Guide.
- ☐ Make sure you have the necessary tools to complete the installation. A Special Parts Check List is provided on page 4 of this Guide.
- ☐ Make sure Feature Codes 980 through 985 are available.

From any working Norstar telephone set, access each of the Feature codes (Feature 980 to 985 inclusive) that will be used by StarTalk. The display should show: **Inactive feature**. If the display shows that a Feature Code is active, you must determine which Functional Terminal (i.e. PC, RAD, SMDR) is using the StarTalk Feature Code.

Refer to the application's **System Coordinator Guide** and change the Feature Codes. A StarTalk Feature Code that is being used by another application **must be changed** before installing StarTalk.

Compatibility

- ☐ StarTalk is compatible with the Norstar Modular DR 2 KSU (8 x 24), equipped with software version 5.2 or greater.

Note: Page 22 of this Guide lists the procedures to determine the software version of the Norstar Modular DR 2 KSU.

- ☐ StarTalk is compatible with all Norstar Compact DR 2 KSUs (6x16).
- ☐ When the StarTalk installation is being conducted at a site where a Norstar Compact DR 2 is in operation, you must install StarTalk on station ports:
 - 101
 - 102
 - 103
 - 104

**Environment
Check List**

The installation area should be:

- ☐ clean, free of dust, dry and well ventilated
- ☐ between 0° and 40° Celsius (approximately 32° to 105° Fahrenheit)
- ☐ non-condensing relative humidity between 8% and 85%
- ☐ at least 4 m (approximately 13 feet) from equipment such as copiers, electrical motors and other equipment that could produce electromagnetic, radio frequency and electrostatic interferences
- ☐ a wall area approximately 1 meter square (approximately 3 feet square)
- ☐ within 305 m (approximately 1000 feet) of the Norstar KSU
- ☐ within 2 m (approximately 6 feet) of a 115V 3 wire grounded electrical outlet
Note: The distance from an outlet is not important if the Module is plugged into the power bar located in the KSU.
- ☐ a minimum of 16 cm (approximately 6 inches) from a corner wall or other component
- ☐ a minimum of 46 cm (approximately 18 inches) from the floor
Note: The distance from the floor should be enough to prevent water damage.

**Electrical
Check List**

The AC electrical requirements for the StarTalk 385 Voice Module are:

- ☐ voltage 115 VAC nominal (105 to 132 volts)
- ☐ frequency 50/60 Hz nominal (+ or - 3 Hz)
- ☐ current 2.8 Amps maximum
- ☐ 3rd wire ground
- ☐ unswitched

Note: The StarTalk module does not require a dedicated circuit. **DO NOT** connect the Module to an outlet on a circuit that is likely to be overloaded, or used by large office equipment or power tools.

**Package
Check List**

Make sure the package contains:

- ☐ the StarTalk Module
- ☐ an AC Power Cord
- ☐ 2 RJ-11 Teladapt Connection Cords
- ☐ a Paper Template (for mounting)
- ☐ shrink wrapped package of documentation

**Special Parts
Check List**

To begin an installation you need:

- ☐ screwdrivers or power drill
- ☐ anti-static grounding strap
- ☐ three #12 x 32 mm (#12 x 1 1/4") wood screws
- ☐ 2 modular telephone jacks
- ☐ twisted pair station wire
- ☐ a roll of tape (or 4 tacks) for mounting the Template
- ☐ plywood backboard, 2 cm (3/4") thick
- ☐ 2 operational Norstar Station Ports
- ☐ surge protector (recommended)
- ☐ RS232 Terminal, RS232 Printer and RS232 printer cable **Note:** These are only required if a printer is being connected.
- ☐ Norstar Installation Guide*

Note: This equipment is not supplied with the StarTalk Module.

* You might need this guide for instructions on installing a Norstar station port in the event there are no free station ports available at the distribution block.

**Installing
the Module**

Once you have verified the environment conditions and your equipment select a location for the Module that is close to the KSU, in a place free of traffic. The area should be free of dampness and dust.

Warning: The StarTalk - 385 module weighs 18.75 kg (41 lbs) and contains fragile electronic components. **Do not drop or bump the Module.**

The circuit boards located inside the StarTalk module are static sensitive. Ensure that you wear a properly grounded static strap. Avoid touching any components or circuit boards located inside the StarTalk module.

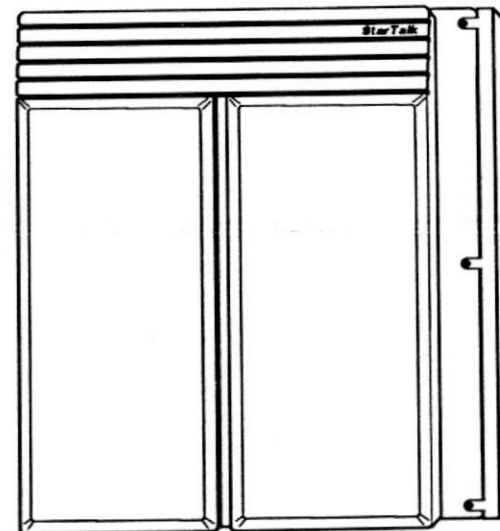


Figure 1: StarTalk - Model 385

Mounting Steps

1. Mount the plywood backboard on the wall.
2. Tape (or tack) the paper wall mounting template to the plywood backboard, that has been mounted on the wall (Figure 2). The marks on the template show where each of the three wood screws are placed. Make sure the template is straight.
3. Screw the three #12 x 32 mm (#12 x 1 1/4") wood screws into the plywood leaving 12 mm (1/2") of each screw exposed. Once the screws are in place, remove the paper template.
4. Remove the front and side covers of the Module by unscrewing the 3 retaining screws on the front, and the 2 at the side. Then slide the cover off.

Important: The StarTalk cover does not lift off. To remove the cover you must slide the cover up toward the left side of the Module, then lift the cover off.



Figure 2: Paper Wall Mounting Template

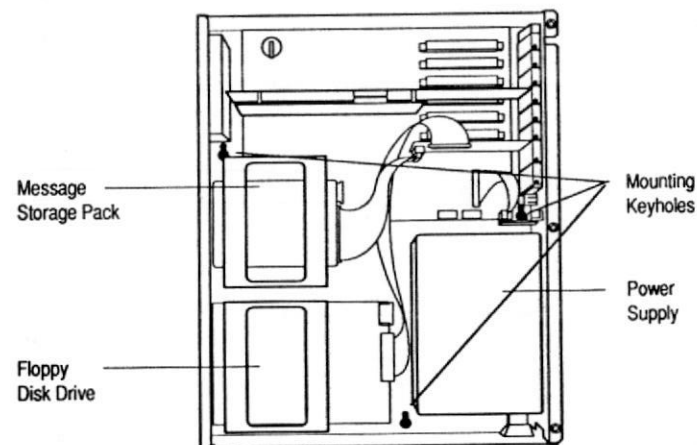


Figure 3: StarTalk - Model 385 - Cover removed

5. Once the cover is removed, locate the 3 keyhole slots at the back of the Module (Figure 3).
6. Align the keyhole slots over the screws already in the plywood. The screw head should pass through the round portion of the keyhole slot.
7. Push the Module against the wall and adjust it so that the screws slide into the neck of the keyhole slot.
8. Tighten the screws to secure the Module against the plywood.
9. Turn the lever on the disk drive counter clockwise 90° and remove the cardboard protector card inserted in the drive. Leave the lever in the open (parallel to the disk slot) position. Retain this cardboard protector card in the event the Module needs to be shipped.
10. Replace the Module front cover.

You are now ready to connect the Module to the KSU.

Connecting the Module to the KSU

Before you start to wire the Module, make sure two Norstar station ports are available at the distribution block.

For instructions on installing a station port, refer to the **Norstar Installation Guide** that came with the Norstar KSU.

IMPORTANT: If you are installing StarTalk on a Modular DR 2 KSU that is running software version 5.2, DO NOT connect StarTalk to Norstar station ports 107, 121, 312, 512, or 712. Refer to page 22 for more information.

To wire the Module:

1. Locate the distribution block.
2. Make sure there are two available station ports at the distribution block. If a station port is not available, you must install one before you continue. Refer to the **Norstar Installation Guide** that came with the KSU for information on installing station ports.
3. Mount two RJ-11 Teladapt Jacks next to the distribution block.
4. Connect each Teladapt Jack to a free station port on the distribution block using twisted pair station wire.
5. Test each port using a working Norstar telephone.
6. Connect one end of the RJ-11 Teladapt Connection Cord to the station port at the side of the Module. Connect the other end to the jack at the RJ-11 Teladapt Jack. Do not use a Teladapt Cord that is longer than 4.5 m (approximately 14 feet).

You are now ready to connect the AC power cord and power up the StarTalk Module.

Connect the AC Power Cord

To connect the AC Power cord:

1. Make sure the power switch on the Module is turned off.
2. Plug the female end of the AC Power Cord into the receptacle located on the right hand side of the Module.
3. Plug the male end of the AC Power Cord into the power bar in the Modular KSU cable trough or directly into a 115 volt grounded, unswitched electrical outlet.

Powering Up the Module

Before powering up the StarTalk Module:

1. Double check all wiring at the distribution block.
2. Make sure the outlet is an unswitched, 3 wire AC grounded outlet.
3. Turn on the StarTalk Module power switch.

Note: StarTalk's self testing software will run for approximately 3 to 5 minutes. You must wait 3 to 5 minutes for this test to be completed. When completed, you are ready to initialize StarTalk.

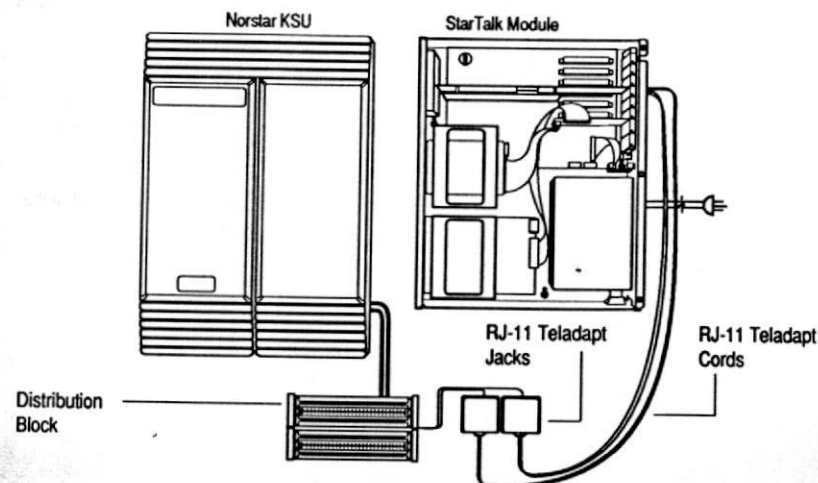


Figure 4: StarTalk - Model 385 - Installation Overview

Connecting a Printer to the StarTalk Module

Printer Check List

Installing a printer is divided into two steps: connecting the printer and setting the RS232 communication parameters. Before you install the printer make sure you have an RS232 cable and an RS232 terminal. If you are connecting a printer we recommend using a Right Angle RS232 Connector.

Before you connect the printer, the printer specifications **must** be met. These are:

- ☐ serial printer type
Note: StarTalk does not work with an IBM PC Printer.
- ☐ printer speeds must support 300, 1200 or 2400 baud
- ☐ Hardware and Software compatability
Note: StarTalk supports xon, xoff and carriage return line feed.
- ☐ cable type must be 'straight through'

Important: To set the communication parameters you need to have an RS232 terminal.

If you are connecting a printer on a return visit to the customer site you must remove the StarTalk Module cover. Follow the instructions for removing the cover on page 6 of this Guide.

To connect a printer:

1. Plug the male end of the RS232 cable into the RS232 port located at the right side of the StarTalk Module.
2. Plug the female end of the RS232 cable into the modem port located at the back of the printer.

Setting the Communication Parameters

To set the communication parameters you must have an RS232 terminal connected to the printer.

Before you set the communication parameters you must know the:

- ☐ baud rate of the printer
Note: The baud rate of the printer must match the baud rate of the StarTalk Module.
- ☐ number of data bits
- ☐ number of stop bits
- ☐ parity type

In order for the RS232 terminal to communicate with StarTalk, the terminal parameters must be set to:

- 300 baud
- 7 data bits
- 1 stop bit
- even parity

For instructions on setting the RS232 communication parameters, refer to the instruction manual that came with the terminal.

Connecting An RS232 Terminal

To connect the RS232 terminal to StarTalk:

1. Pin 2 on one end is connected to pin 2 on the other end, pin 3 on one end is connected to pin 3 on the other end, and pin 7 on one end is connected to pin 7 on the other end. The end of the cable attached to StarTalk must be male. Refer to page 24 **Figures and Diagrams**, for more information.
2. Attach the RS232 cable to the connector.
3. Attach the other end of the cable to the modem connector on the terminal.

If you are returning to a site to install a printer connection to StarTalk and do not know what the StarTalk communication parameters are:

1. Turn the power off to the StarTalk Module.
2. Press and hold the RS232 Reset Button located next to the printer port.
3. While holding the Reset Button turn on the power to StarTalk.

The RS232 parameters are now set to the default parameters:

- 300 baud
- 7 data bits
- 1 stop bit
- even parity

To set the RS232 printer communication parameters:

1. Turn on the RS232 Terminal.
Note: Make sure that the StarTalk Module is turned on.

2. Press **Return**

The screen on the RS232 Terminal shows:

Password:

Note: If Password: does not appear on the screen, if other characters appear, or if nothing appears recheck the communication parameters on both the RS232 Printer and StarTalk. If the parameters match, verify that the terminal cable has the correct pinouts.

3. Type **S Y S M G R**

Note: This password must be entered in all capitals. There are no spaces entered.

4. Press **Return**

The screen shows:

Top Level

0. Exit
1. Backup
2. Alarms
3. RS232 Communication Parameters
9. Use French - Utilisez francais

Enter a choice, ?, space, or ESC:

5. Type **3**

6. Press **Return**

The screen shows:

RS232 Communication Parameters

1. 4800 baud / 8 data bits / 1 stop bit / no parity
2. 2400 baud / 8 data bits / 1 stop bit / no parity
3. 2400 baud / 7 data bits / 1 stop bit / even parity
4. 1200 baud / 8 data bits / 1 stop bit / no parity
5. 1200 baud / 7 data bits / 1 stop bit / even parity
6. 300 baud / 8 data bits / 1 stop bit / no parity
7. 300 baud / 7 data bits / 1 stop bit / even parity

7. Type <the number beside the communication parameters>

8. Press **Return**

The screen shows:

Change your Baud Rate and Press Return

9. Change the RS232 communication parameter to match the parameters selected for StarTalk in step 7. Refer to the RS232 Terminal manual.

10. Press **Return**
The screen shows:

Should this change be made permanent (Y/N)?

11. Type **y**

12. Press **Return**
The screen shows:

Top Level

- 0. Exit
- 1. Backup
- 2. Alarms
- 3. RS232 Communication Parameters
- 9. Use French - Utilisez français

Enter a choice, ?, space, or ESC:

13. Press **0** to exit.

Note: This means, to exit press 'zero'.

14. Press **Return**

Note: To test the printer you must print a StarTalk report. Refer to the Set Up and Operation Guide, Section 9.

You have now completed installing the printer and setting the communication parameters.

Before You Initialize StarTalk

IMPORTANT: Before you initialize StarTalk you must check the Norstar Key Service Unit DN digit length.

If you are installing StarTalk with a Norstar Modular KSU that is using a 2 digit DN length, we recommend that you change the DN length to 3 digits or higher. To change the Norstar KSU DN length, refer to the Norstar Installation Guide.

Initializing StarTalk

Initializing StarTalk establishes the DN digit length to match the Norstar DN length and determines the primary and alternate languages of the StarTalk voice prompts (if equipped).

Before you begin:

1. Know the Norstar DN length. If you do not know the DN length, go to any Norstar telephone and press **Feature** ***** **0** and **Intercom**. Count the number of digits shown on the display. Zeros that appear before the number are not entered. For example, 0021 is entered as 21.

IMPORTANT: If StarTalk is being installed on a Modular Norstar KSU, and the DN length is 2, we recommend changing the DN length to 3 digits or higher.

2. Determine if the system is equipped with bilingual language capability.
3. Know the primary and alternate languages to be used.

Note: To initialize StarTalk you require a Norstar M7310 or M7324 telephone.

To initialize StarTalk:

1. Press **Feature 9 8 3**

The display shows:

Pwd:		
RETRY		OK

2. Enter **CONFIG (266344)** using the dialpad.

3. Press **OK**

The display shows:

DN Length:	
------------	--

4. Enter <the DN digit length>

Note: You **MUST** enter the digit length that is the same as the Norstar DN length. The allowable DN range is between 2 and 4 digits. StarTalk DN length default is 3.

5. Press **OK**

The display shows:

Bilingual?	
YES	NO

6. Press **YES** or **NO**

The display shows:

Primary lang?	
ENG	FRE

7. Select the primary language.

Note: StarTalk is enabled with English only or English/French. English is abbreviated as ENG, French is abbreviated as FRE.

The display shows:

System config	
RETRY	OK

8. Press **OK**

The display shows:

Configuring...

Once the StarTalk initial configuration is completed, the display shows "System ready" and "Exit", then returns to the Norstar time and date.

Setting StarTalk Date and Time

The StarTalk date and time is independent of the Norstar time and date, and must be set after you initialize StarTalk.

The StarTalk date and time is part of the StarTalk envelope information that is stamped on incoming messages. This date and time stamp also indicates to StarTalk which greetings to play.

To set the time and date:

1. Press **Feature 9 8 4**

The display shows:

Log:		
QUIT	RETRY	OK

2. Enter **1020000**

Note: If the DN length is set at 2, enter 120000. If the DN length is set at 4, enter 10020000.

3. Press **OK**
The display shows:

The display shows a rectangular screen with a black border. Inside, the text "<date>" is at the top left, "CHNG" is below it, and "NEXT" is at the top right. There are three horizontal lines at the bottom for input.

4. Press **CHNG**
The display shows:

The display shows a rectangular screen with a black border. Inside, the text "Enter mmdd:" is at the top, and "RETRY" is below it. There are three horizontal lines at the bottom for input.

5. Enter <the month and day>
Note: This is a four digit field. Any single digit month or day must have a zero preceding the number. For example, June 4 must be entered as 0604.

6. Press **NEXT**
The display shows:

The display shows a rectangular screen with a black border. Inside, the text "<time>" is at the top left, "CHNG" is below it, and "NEXT" is at the top right. There are three horizontal lines at the bottom for input.

7. Press **CHNG**
The display shows:

The display shows a rectangular screen with a black border. Inside, the text "Enter hhmm:" is at the top, and "RETRY" is below it. There are three horizontal lines at the bottom for input.

8. Enter <the time in hours and minutes>
Note: This is a four digit field. Any single hour or minute must have a zero preceding the number. For example, 7:05 must be entered as 0705.

9. The display shows:

The display shows a rectangular screen with a black border. Inside, the text "<time>" is at the top left, "RETRY" is below it, and "AM" and "PM" are at the top right. There are three horizontal lines at the bottom for input.

10. Press **AM** or **PM**

To end this StarTalk session, press **RLS**

Naming StarTalk Ports

After the installation and initialization are completed, we recommend that you rename both of the Norstar station ports using Norstar Configuration programming to:

STARTLK

WARNING: If you are exchanging any cabling or ports after the installation and initialization, you must make sure Norstar "auto set relocation" feature is 'NO'. If the auto set relocation feature is 'YES', then any access to StarTalk will result in disconnection of the session.

If the DN digit length changes or calls are dropped then:

1. Turn off the StarTalk module.
2. Change the Norstar set relocate feature to 'NO'.
3. Turn off the Norstar KSU.
4. Restart the Norstar KSU and the StarTalk module.

Trouble- shooting

Troubleshooting the StarTalk installation is needed if you attempt to initialize the system and the display shows:



Should this occur:

1. Check the wiring at the distribution block, then press **Feature** **9** **8** **3**

The display should show:



2. If the display still shows:

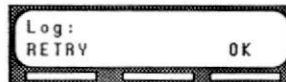
Inactive feature disconnect the AC power and then check all the wiring for the StarTalk Module. Make sure the:

- ☐ AC power cord is connected and the power switch is turned on
- ☐ the StarTalk Module has had the necessary time to complete the 3 to 5 minute self testing procedure
- ☐ ribbon cables fit tightly into the board
- ☐ message storage pack fits tightly into the mother board
- ☐ StarTalk is connected to a working station port
- ☐ power source to the StarTalk Module is not damaged

- After checking all the wiring, reconnect the power. After waiting 3 to 5 minutes:

Press **Feature** **9** **8** **3**

The display should show:



Note: If you have checked the wiring and the Module is still not operational, unmount and repackage the Module, and return it to your distributor.

Determining the Modular Software Version

To determine the software version of your Norstar Modular DR 2 System, perform the following steps:

- Enter the Norstar Configuration programming from any M7310 or M7324 telephone.

For more information on Configuration programming refer to your **Norstar Modular KSU Installation Guide**.

- Press **BACK** to move to the Heading "D.Maintenance"

- Press **SHOW**

The display shows "1. System Version"

- Press **SHOW**

The display shows "SP: 30EXF02". Only the last three characters are used to indicate which software is being used.

Norstar uses letters of the alphabet to designate version numbers. The letter A represents 0, letter B represents 1, letter C represents 2, and so on. The display must show the letter F or higher to operate with StarTalk.

In the example above, F02 is the version number where F represents the number 5. Therefore, the version number of the KSU is 5.2.

Determining the StarTalk Software Version

To determine if the StarTalk Module is Bilingual it must operate with software version 1.5 or greater. To determine the software version of the StarTalk Module:

- Press **Feature** **9** **8** **3**

The display shows:



- Enter 1 0 2 0 0 0 0

Note: If the DN length is set at 2, enter 120000. If the DN length is set at 4, enter 10020000.

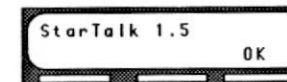
- Press **OK**

The display show:



- Press **9**

The display shows:



To end the StarTalk session, press **RLS**

Figures and Diagrams

The straight through cable is connected from the StarTalk Module to the RS232 Terminal. Pin 2 on one end is connected to pin 2 on the other end, pin 3 on one end is connected to pin 3 on the other end, and pin 7 on one end is connected to pin 7 on the other end. The end of the cable attached to StarTalk must be male.

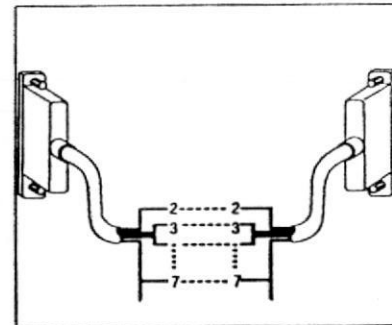


Diagram 1: Pinout Diagram

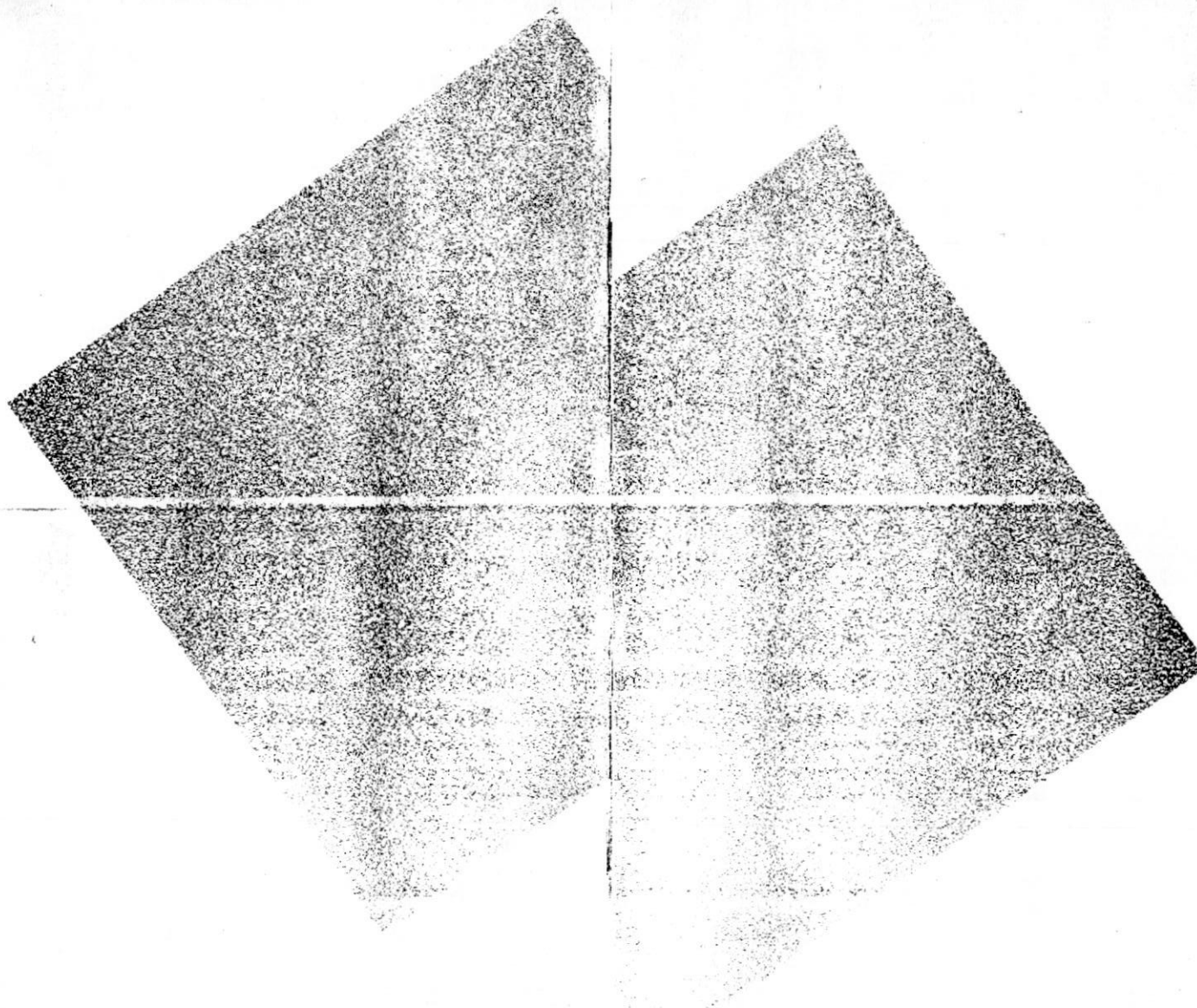
StarTalk Module	RS323 Terminal	Function
pin 2	pin 2	Transmit Data
pin 3	pin 3	Receive Data
pin 7	pin 7	Ground

Figure 5: Pin Definition



**Norstar
StarTalk**

385
Installation
Guide



**Norstar
StarTalk**
110/165
Installation
Guide



This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations for the Canadian Department of Communications.

FCC Regulations

Radio Frequency Interference

Warning: This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules and CSA specification C108.8, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required at his own expense to take whatever measures necessary to correct the interference.

CAUTION: The StarTalk Module contains fragile electronic parts. It weighs 10 kg (approximately 22 lbs). **DO NOT DROP OR BUMP THE MODULE.**

In the event of equipment malfunction, all repairs will be performed by Northern Telecom or by one of its authorized dealers.

Address of repair facilities

USA:

Northern Telecom Inc.
Product Service Center
720 Massman Drive
Nashville, TN
37210
Attn. RA# _____

Canada:

Northern Telecom Canada Ltd.
Telecom Service Division
30 Norelco Drive
Weston, Ontario
M9L 2X6

Introduction

StarTalk is available in three different models: 110, 165, 385. The first two are packaged in the same hardware and are installed in the same manner. These three models differ only in the number of channels/ports available and the number of minutes in the message storage pack.

The first two models have the following features:

2 channel/1 port 110 minute message storage pack

or

4 channel/2 port 165 minute message storage pack

These models can be easily identified by the AC power cord outlet located at the bottom of the StarTalk Module. The difference between the two and the four channel model can be identified by the presence of one or two Teladapt jacks on the right hand side of the StarTalk Module.

The third model has the following features:

4 channel/2 port 385 minute message storage pack

This model can be easily identified by the AC power cord outlet located on the right hand side of the StarTalk Module. **Note:** The StarTalk Module front and side covers must be removed to determine the model type.

Important: This section of the Installation Guide covers the procedures required to install the 110 and 165 minute message storage pack models. For instructions on installing the 385 minute message storage pack model, please turn this Guide over and read the other side.

Ports vs Channels

The StarTalk Module is connected to the Norstar KSU through the Station Ports. Because Norstar is a digital system, each station port is capable of having either two voice, two data, or a voice and data conversation simultaneously. The two voice or data channels are referred to as the B1 and B2 channels. StarTalk uses the B1 and B2 channel capability of each Norstar Station port. This provides StarTalk with the capability of handling two calls simultaneously on each port.

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**Before
You Start**

- ☐ Read this Guide.
- ☐ Make sure the environment and electrical conditions are met. An Environment and Electrical Check List is provided on pages 3 and 4 of this Guide.
- ☐ Make sure all the equipment in the package is accounted for. A Package Check List is provided on page 4 of this Guide.
- ☐ Make sure you have the necessary tools to complete the installation. A Special Parts Check List is provided on page 4 of this Guide.
- ☐ Make sure Feature Codes 980 through 985 are available.

From any working Norstar telephone set, access each of the Feature codes (Feature 980 to 985 inclusive) that will be used by StarTalk. The display should show: **Inactive feature**. If the display shows that a Feature Code is active, you must determine which Functional Terminal (i.e. PC, RAD, SMDR) is using the StarTalk Feature Code.

Refer to the application's **System Coordinator Guide** and change the Feature Codes. A StarTalk Feature Code that is being used by another application **must be changed** before installing StarTalk.

Compatibility

- ☐ StarTalk is compatible with the Norstar Modular DR2 KSU (8 x 24), equipped with software version 5.2 or greater.

Note: Page 22 of this Guide lists the procedures to determine the software version of the Norstar Modular DR2 KSU.

- ☐ StarTalk is compatible with the Norstar Compact DR2 KSU (6x16).
- ☐ When the StarTalk installation is being conducted at a site where a Norstar Compact DR2 is in operation, you must install StarTalk on station ports:
 - 101
 - 102
 - 103
 - 104

**Environment
Check List**

The installation area should be:

- ☐ clean, free of dust, dry and well ventilated
- ☐ between 0° and 40° Celsius (approximately 32° to 105° Fahrenheit)
- ☐ non-condensing relative humidity between 8% and 85%
- ☐ at least 4 m (approximately 13 feet) from equipment such as copiers, electrical motors and other equipment that could produce electromagnetic, radio frequency and electrostatic interferences
- ☐ a wall area approximately 1 meter square (approximately 3 feet square)
- ☐ within 305 m (approximately 1000 feet) of the Norstar KSU
- ☐ within 2 m (approximately 6 feet) of a 115V 3 wire grounded electrical outlet.
Note: The distance from an outlet is not important if the Module is plugged into the power bar located in the KSU.
- ☐ a minimum of 16 cm (approximately 6 inches) from a corner wall or other component
- ☐ a minimum of 46 cm (approximately 18 inches) from the floor
Note: The distance from the floor should be enough to prevent water damage.

Electrical Check List

The AC electrical requirements for the 110/165 StarTalk Voice Module are:

- ☐ voltage 115 VAC nominal (105 to 132 volts)
- ☐ frequency 50/ 60 Hz nominal (+ or - 3 Hz)
- ☐ current 2.8 Amps maximum
- ☐ 3rd wire ground
- ☐ unswitched

Note: The StarTalk module does not require a dedicated circuit. **DO NOT** connect the Module to an outlet on a circuit that is likely to be overloaded, or used by large office equipment or power tools.

Package Check List

Make sure the package contains:

- ☐ the StarTalk Module
- ☐ an AC Power Cord
- ☐ 2 RJ-11 Teladapt Connection Cords
- ☐ a Paper Template (for mounting)
- ☐ shrink wrapped package of documentation

Special Parts Check List

To begin an installation you need:

- ☐ screwdrivers or power drill
- ☐ anti-static grounding strap
- ☐ three #12 x 20mm (#12 x 3/4") wood screws
- ☐ 1 or 2 modular telephone jacks (depending on model)
- ☐ twisted pair station wire
- ☐ a roll of tape (or 4 tacks) for mounting the Template
- ☐ plywood backboard, 2 cm (3/4") thick
- ☐ 1 or 2 operational Norstar Station Ports (depending on model)
- ☐ surge protector (recommended)
- ☐ RS232 Terminal, RS232 Printer and RS232 printer cable **Note:** These are only required if a printer is being connected.
- ☐ Norstar Installation Guide*

Note: This equipment is not supplied with the StarTalk Module.

* You might need this guide for instructions on installing a Norstar station port in the event there are no free station ports available at the distribution block.

Installing the Module

Once you have verified the environment conditions and your equipment select a location for the Module that is close to the KSU, in a place free of traffic. The area should be free of dampness and dust.

Warning: The StarTalk - 110/165 module weighs 10 kgs (22 lbs) and contains fragile electronic components. **Do not drop or bump the Module.**

The circuit boards located inside the StarTalk module are static sensitive. Ensure that you wear a properly grounded static strap. Avoid touching any components or circuit boards located inside the StarTalk module.

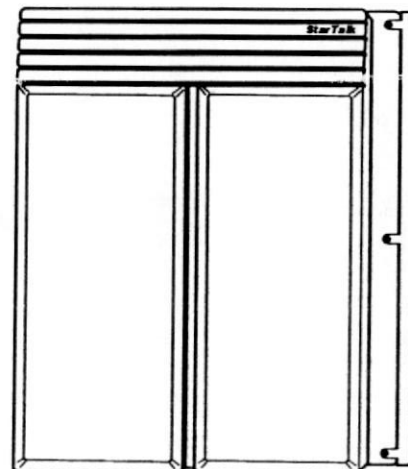


Figure 1: StarTalk - Model 110/165

Mounting Steps

To mount the Module:

1. Mount the plywood backboard on the wall.
2. Tape (or tack) the paper wall mounting template to the plywood backboard that has been mounted on the wall (Figure 2). The marks on the template show where each of the three wood screws are placed. Make sure the template is straight.
3. Screw the three #12 x 20 mm (#12 x 3/4") wood screws into the plywood leaving 3 mm (1/8") of each screw exposed. Once the screws are in place, remove the paper template.
4. Remove the front and side covers of the Module by unscrewing the 3 retaining screws on the front, the 2 at the side and 1 at the top. Then slide the cover off.

Important: The StarTalk cover does not lift off. To remove the cover you must slide the cover up toward the top of the Module, then lift the cover off.

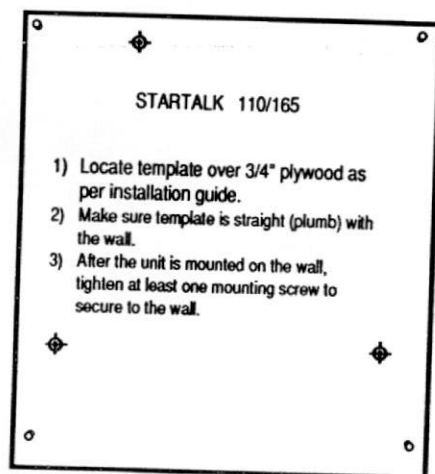


Figure 2: Paper Wall Mounting Template

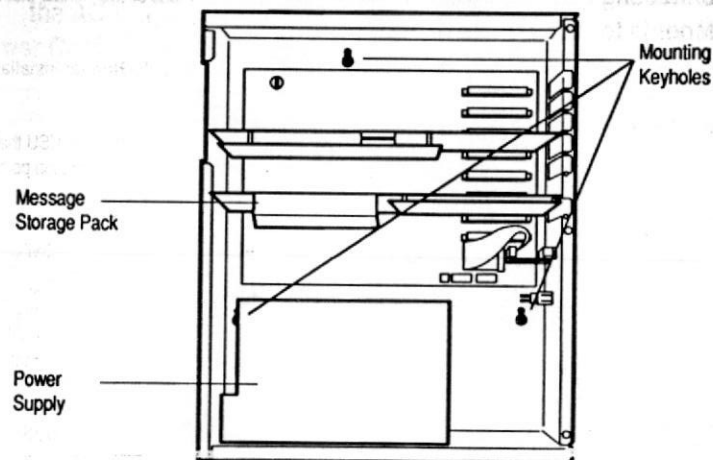


Figure 3: StarTalk - Model 110/165 - Cover removed

5. Once the cover is removed, locate the 3 keyhole slots at the back of the Module (Figure 3).
6. Align the keyhole slots over the screws already in the plywood. The screw head should pass through the round portion of the keyhole slot.
7. Push the Module against the plywood and adjust it so that the screws slide into the neck of the keyhole slots.
8. Tighten the screws to secure the Module against the plywood.
9. Replace the Module front cover.

You are now ready to connect the Module to the KSU.

Connecting the Module to the KSU

Before you start to wire the Module, make sure one or two Norstar station ports are available at the distribution block.

For instructions on installing a station port, refer to the *Norstar Installation Guide* that came with the Norstar KSU.

IMPORTANT: If you are installing StarTalk on a Modular DR2 KSU that is running software version 5.2, DO NOT connect StarTalk to Norstar station ports 107, 121, 312, 512, or 712. Refer to Page 22 for more information.

To wire the Module:

1. Locate the distribution block.
2. Depending on the StarTalk model, make sure there are one or two available station ports at the distribution block. If a station port is not available, you must install one before you continue. Refer to the *Norstar Installation Guide* that came with the KSU for information on installing station ports.
3. Mount the RJ-11 Teladapt Jack(s) next to the distribution block.
4. Connect each Teladapt Jack to a free station port on the distribution block using twisted pair station wire.
5. Test each port using a working Norstar telephone.
6. Connect one end of the RJ-11 Teladapt Connection Cord to the station port at the side of the Module. Connect the other end to the jack at the RJ-11 Teladapt Jack. Do not use a Teladapt Cord that is longer than 4.5 m (approximately 14 feet).
7. Replace the side cover.

You are now ready to connect the AC power cord and power up the StarTalk Module.

Connecting the AC Power Cord

To connect the AC Power cord:

1. Make sure the power switch on the Module is turned off.
2. Plug the female end of the AC Power Cord into the receptacle located on the bottom of the Module.
3. Plug the male end of the AC Power Cord into the power bar in the Modular KSU cable trough or directly into a 115 volt grounded, unswitched electrical outlet.

Powering Up the Module

Before powering up the StarTalk Module:

1. Double check all wiring at the distribution block.
2. Make sure the outlet is an unswitched, 3 wire AC grounded outlet.
3. Turn on the StarTalk Module power switch.

Note: StarTalk's self testing software will run for approximately 3 to 5 minutes. You must wait 3 to 5 minutes for this test to be completed. When completed, you are ready to initialize StarTalk.

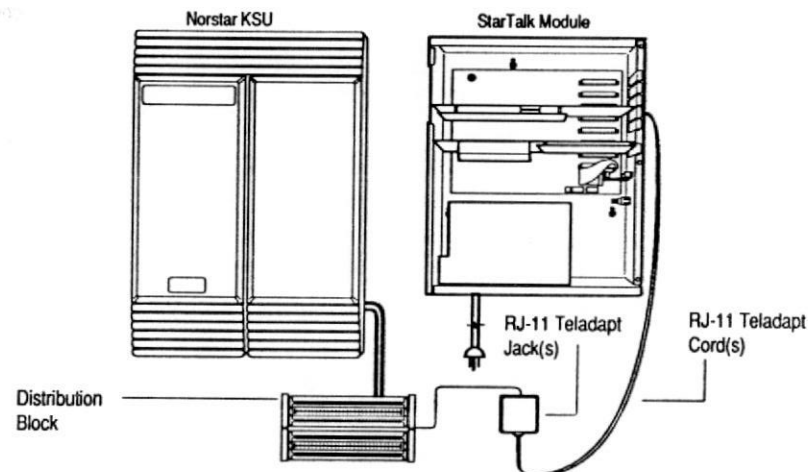


Figure 4: StarTalk Model 110/165 - Installation Overview

Connecting a Printer to the StarTalk Module

Printer Check List

Installing a printer is divided into two steps: connecting the printer and setting the RS232 communication parameters. Before you install the printer make sure you have an RS232 cable and an RS232 terminal. If you are connecting a printer we recommend using a Right Angle RS232 Connector.

Before you connect the printer, the printer specifications must be met. These are:

- ☐ serial printer type
Note: StarTalk does not work with an IBM PC Printer.
- ☐ printer speeds must support 300, 1200 or 2400 baud
- ☐ Hardware and Software compatability
Note: StarTalk supports xon, xoff and carriage return line feed.
- ☐ cable type must be 'straight through'

Important: To set the communication parameters you need to have an RS232 terminal.

If you are connecting a printer on a return visit to the customer site you must remove the StarTalk Module cover. Follow the instructions for removing the cover on page 6 of this Guide.

To connect a printer:

1. Plug the male end of the RS232 cable into the RS232 port located at the right side of the StarTalk Module.
2. Plug the female end of the RS232 cable into the modem port located at the back of the printer.

Setting the Communication Parameters

To set the communication parameters you must have an RS232 terminal connected to the printer.

Before you set the communication parameters you must know the:

- ☐ baud rate of the printer
Note: The baud rate of the printer must match the baud rate of the StarTalk Module.
- ☐ number of data bits
- ☐ number of stop bits
- ☐ parity type

In order for the RS232 terminal to communicate with StarTalk the terminal parameters must be set to:

- 300 baud
- 7 data bits
- 1 stop bit
- even parity

For instructions on setting the RS232 communication parameters, refer to the instruction manual that came with the terminal.

Connecting An RS232 Terminal

To connect the RS232 terminal to StarTalk:

1. Pin 2 on one end is connected to pin 2 on the other end, pin 3 on one end is connected to pin 3 on the other end, and pin 7 on one end is connected to pin 7 on the other end. The end of the cable attached to StarTalk must be male. Refer to page 24 Figures and Diagrams, for more information.
2. Attach the RS232 cable to the connector.
3. Attach the other end of the cable to the modem connector on the terminal.

If you are returning to a site to install a printer connection to StarTalk and do not know what the StarTalk communication parameters are:

1. Turn the power switch off to the StarTalk Module.
2. Press and hold the RS232 Reset Button located next to the printer port.
3. While holding the Reset Button turn on the power switch to StarTalk.

The RS232 parameters are now set to the default parameters:

- 300 baud
- 7 data bits
- 1 stop bit
- even parity

To set the RS232 printer communication parameters:

1. Turn on the RS232 Terminal.

Note: Make sure that the StarTalk Module is turned on.

2. Press

The screen on the RS232 Terminal shows:

Password:

Note: If Password: does not appear on the screen, if other characters appear, or if nothing appears recheck the communication parameters on both the RS232 Printer and StarTalk. If the parameters match, verify that the terminal cable has the correct pinouts.

3. Type `SYSMGR`

Note: This password must be entered in all capitals. There are no spaces entered.

4. Press

The screen shows:

Top Level

0. Exit
1. Backup
2. Alarms
3. RS232 Communication Parameters
9. Use French - Utilisez francais

Enter a choice, ?, space, or ESC:

5. Type `3`

6. Press

The screen shows:

RS232 Communication Parameters

1. 4800 baud / 8 data bits / 1 stop bit / no parity
2. 2400 baud / 8 data bits / 1 stop bit / no parity
3. 2400 baud / 7 data bits / 1 stop bit / even parity
4. 1200 baud / 8 data bits / 1 stop bit / no parity
5. 1200 baud / 7 data bits / 1 stop bit / even parity
6. 300 baud / 8 data bits / 1 stop bit / no parity
7. 300 baud / 7 data bits / 1 stop bit / even parity

7. Type <the number beside the communication parameters>

8. Press

The screen shows:

Change your Baud Rate and Press Return

9. Change the RS232 communication parameter to match the parameters selected for StarTalk in step 7. Refer to the RS232 Terminal manual.

10. Press **Return**
The screen shows:

Should this change be made permanent (Y/N)?

11. Type **Y**

12. Press **Return**
The screen shows:

Top Level

- 0. Exit
- 1. Backup
- 2. Alarms
- 3. RS232 Communication Parameters
- 9. Use French - Utilisez français

Enter a choice, ?, space, or ESC:

13. Press **0** to exit.

Note: This means, to exit press 'zero'.

14. Press **Return**

Note: To test the printer you must print a StarTalk report. Refer to the Set Up and Operation Guide, Section 9.

You have now completed installing the printer and setting the communication parameters.

Before You Initialize StarTalk

IMPORTANT: Before you initialize StarTalk you must check the Norstar Key Service Unit DN digit length.

If you are installing StarTalk with a Norstar Modular KSU that is using a 2 digit DN length, we recommend that you change the DN length to 3 digits or higher. To change the Norstar KSU DN length, refer to the Norstar Installation Guide.

Initializing StarTalk

Initializing StarTalk establishes the DN digit length to match the Norstar DN length and determines the primary and alternate languages of the StarTalk voice prompts (if equipped).

Before you begin:

1. Know the Norstar DN length. If you do not know the DN length, go to any Norstar telephone and press **Feature** **0** and **Intercom**. Count the number of digits shown on the display. Zeros that appear before the number are not entered. For example, 0021 is entered as 21.

IMPORTANT: If StarTalk is being installed on a Modular Norstar KSU and the DN length is 2, we recommend changing the DN length to 3 digits or higher.

2. Determine if the system is equipped with bilingual language capability.
3. Know the primary and alternate languages to be used.

Note: To initialize StarTalk you require a Norstar M7310 or M7324 telephone.

To initialize StarTalk:

1. Press **Feature 983**

The display shows:

Pwd:	
RETRY	OK

2. Enter **CONFIG(266344)** using the dialpad.

3. Press **OK**

The display shows:

DN Length:

4. Enter <the DN digit length>

Note: You **MUST** enter the digit length that is the same as the Norstar DN length. The allowable DN range is between 2 and 4 digits. StarTalk DN length default is 3.

5. Press **OK**

The display shows:

Bilingual?	
YES	NO

6. Press **YES** or **NO**

The display shows:

Primary lang?	
ENG	FRE

7. Select the primary language.

Note: StarTalk is enabled with English only or English/French. English is abbreviated as ENG, French is abbreviated as FRE.

The display shows:

System config	
RETRY	OK

8. Press **OK**

The display shows:

Configuring...

Once the StarTalk initial configuration is completed, the display shows "System ready" and "Exit", then returns to the Norstar time and date.

Setting StarTalk Date and Time

The StarTalk date and time is independent of the Norstar time and date, and must be set after you initialize StarTalk.

The StarTalk date and time is part of the StarTalk envelope information that is stamped on incoming messages. This date and time stamp also indicates to StarTalk which greetings to play.

To set the time and date:

1. Press **Feature 984**

The display shows:

Log:		
QUIT	RETRY	OK

2. Enter **1020000**

Note: If the DN length is set at 2, enter 120000. If the DN length is set at 4, enter 10020000.

3. Press **OK**
The display shows:

<date>	
CHNG	NEXT

4. Press **CHNG**
The display shows:

Enter mdd:	
RETRY	

5. Enter <the month and day>
Note: This is a four digit field. Any single month or day must have a zero preceding the number. For example, June 4 must be entered as 0604.

6. Press **NEXT**
The display shows:

<time>	
CHNG	NEXT

7. Press **CHNG**
The display shows:

Enter hhmm:	
RETRY	

8. Enter <the time in hours and minutes>
Note: This is a four digit field. Any single hour or minute must have a zero preceding the number. For example, 7:15 must be entered as 0715.

9. The display shows:

<time>		
RETRY	AM	PM

10. Press **AM** or **PM**

To end this StarTalk session, press **RLS**

Naming StarTalk Ports

After the installation and initialization are completed, we recommend that you rename both of the Norstar station ports using Norstar Configuration programming to:

STARTLK

WARNING: If you are exchanging any cabling or ports after the installation and initialization, you must make sure Norstar "auto set relocation" feature is 'NO'. If the auto set relocation feature is 'YES', then any access to StarTalk will result in disconnection of the session.

If the DN digit length changes or calls are dropped then:

1. Turn off the StarTalk module.
2. Change the Norstar set relocate feature to 'NO'.
3. Turn off the Norstar KSU.
4. Restart the Norstar KSU and the StarTalk module.

Trouble- shooting

Troubleshooting the StarTalk installation is needed if you attempt to initialize the system and the display shows:



Should this occur:

1. Check the wiring at the distribution block, then press **Feature** **9** **8** **3**

The display should show:



2. If the display still shows: **Inactive feature** disconnect the AC power and then check all the wiring for the StarTalk Module. Make sure the:
 - ☐ AC power cord is connected and the power switch is turned on
 - ☐ the StarTalk Module has had the necessary time to complete the 3 to 5 minute self testing procedure
 - ☐ ribbon cables fit tightly into the board
 - ☐ message storage pack fits tightly into the mother board
 - ☐ StarTalk is connected to a working station port
 - ☐ power source to the StarTalk Module is not damaged

3. After checking all the wiring, reconnect the power. After waiting 3 to 5 minutes:

Press **Feature** **9** **8** **3**

The display should show:



Note: If you have checked the wiring and the Module is still not operational, unmount and repackage the Module, and return it to your distributor.

Determining the Modular Software Version

To determine the software version of your Norstar Modular DR2 System, perform the following steps:

1. Enter the Norstar Configuration programming from any M7310 or M7324 telephone.

For more information on Configuration programming refer to your **Norstar Modular KSU Installation Guide**.

2. Press **BACK** to move to the Heading "D.Maintenance"

3. Press **SHOW**

The display shows "1. System Version"

4. Press **SHOW**

The display shows "SP: 30EXF02". Only the last three characters are used to indicate which software is being used.

Norstar uses letters of the alphabet to designate version numbers. The letter A represents 0, letter B represents 1, letter C represents 2, and so on. The display must show the letter F or higher to operate with StarTalk.

In the example above, F02 is the version number where F represents the number 5. Therefore, the version number of the KSU is 5.2.

Determining the StarTalk Software Version

To determine if the StarTalk Module is Bilingual it must operate with software version 1.5 or greater. To determine the software version of the StarTalk Module:

1. Press **Feature** **9** **8** **3**

The display shows:



2. Enter 1020000

Note: If the DN length is set at 2, enter 120000. If the DN length is set at 4, enter 10020000.

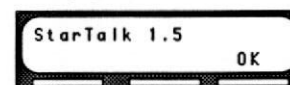
3. Press **OK**

The display shows:



4. Press **9**

The display shows:



To end the StarTalk session, press **RLS**

Figures and Diagrams

The straight through cable is connected from the StarTalk Module to the RS232 Terminal. Pin 2 on one end is connected to pin 2 on the other end, pin 3 on one end is connected to pin 3 on the other end, and pin 7 on one end is connected to pin 7 on the other end. The end of the cable attached to StarTalk must be male.

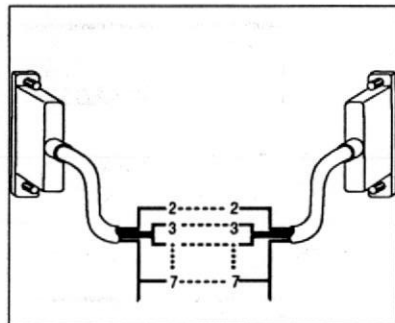


Diagram 1: Pinout Diagram

StarTalk Module	RS232 Terminal	Function
pin 2	pin 2	Transmit Data
pin 3	pin 3	Receive Data
pin 7	pin 7	Ground

Figure 5: Pin Definition

Figures and Diagrams

The straight through cable is connected from the StarTalk Module to the RS232 Terminal. Pin 2 on one end is connected to pin 2 on the other end, pin 3 on one end is connected to pin 3 on the other end, and pin 7 on one end is connected to pin 7 on the other end. The end of the cable attached to StarTalk must be male.

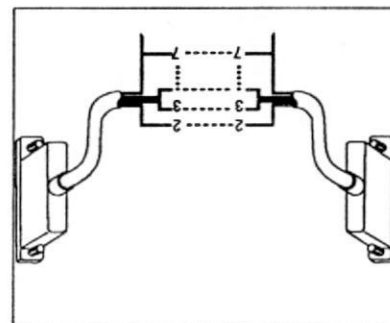


Diagram 1: Pinout Diagram

StarTalk Module	RS232 Terminal	Function
pin 2	pin 2	Transmit Data
pin 3	pin 3	Receive Data
pin 7	pin 7	Ground

Figure 5: Pin Definition

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Norstar
StarTalk

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Guide

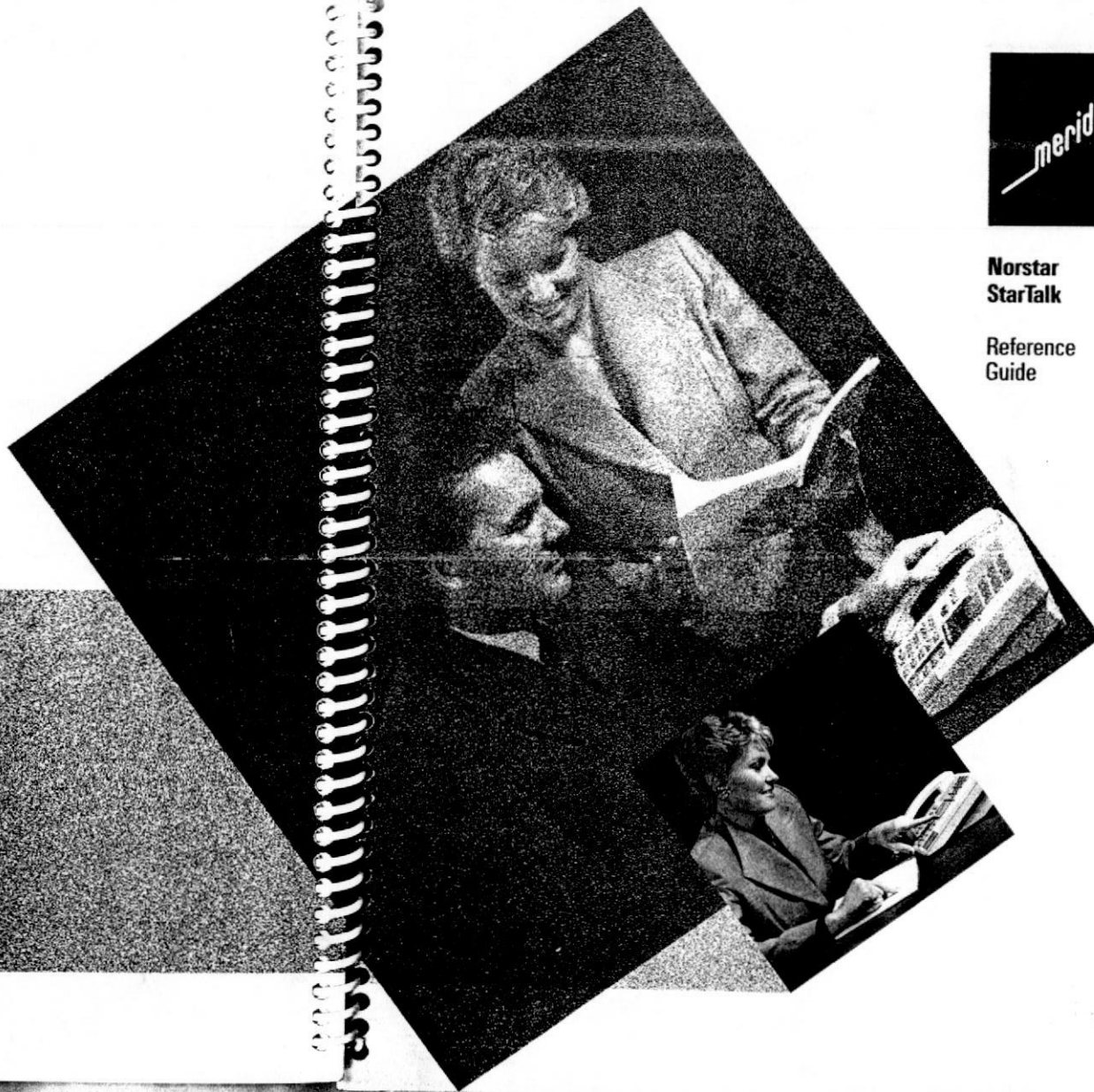


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Introduction

Pre-requisites

Before you attempt to use StarTalk, ensure that you are familiar with how the Norstar one and two line display telephones operate. We recommend that you look through your Norstar telephone user cards before proceeding.

Learning About StarTalk

2

About
StarTalk

Introduction StarTalk is a fully automated receptionist service that offers call routing and message taking services. This section describes how StarTalk works and covers:

- basic system operation
- using the Feature Codes
- the Automated Attendant
- the Company Directory
- the different mailboxes
- using the dialpad
- the Norstar displays
- voice prompts

How StarTalk Works StarTalk works with a Norstar Business Communication System, offering a receptionist service that routes calls and provides message taking capability. When enabled, StarTalk answers incoming calls and routes the calls to extensions and mailboxes within the system.

StarTalk has two main components:

- Automated Attendant
- Mailboxes

The first component is the Automated Attendant. The Automated Attendant works like a receptionist would when answering incoming calls. The Automated Attendant plays a list of options to a caller with a voice prompt. If you know which option you would like you can interrupt the Automated Attendant by pressing your selection on the dialpad of any tone dial telephone.

Once an option has been selected, the Automated Attendant responds to the command by routing the call to an extension or mailbox within your company or directing a caller to the Company Directory or designated operator.

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Glossary - covers the terms used in this Guide.

Index - provides a list of everything contained in this Guide and where the information is located. The Index is in alphabetical order. If you cannot find a term, try looking for your item according to its task.

Other Documents

For more information about StarTalk refer to:

StarTalk User Card
Set Up and Operation Guide

Knowing The Different Symbols

As you work through this Guide you will notice that conventions have been used to represent the words that appear on the Norstar display.

Long Boxes

Words that are enclosed in long boxes represent the prompt line of the display. Any word or command that is part of the first line of the display appears in a long box.

Example:

Pa wd:

When you see a word enclosed in a long square box it represents the action you are to take to proceed.

Rounded Boxes

Words that are enclosed in rounded boxes represent options that appear on the second line of the Norstar display. Any option that is part of the second line on the display is enclosed in a rounded box.

Example: Press

M B O X

When you see a word enclosed in a rounded box, you can press the button directly under the option on your Norstar display.

Shadowed Boxes

This Guide uses dialpad button representations in shadowed boxes. Any button that appears in the text or instruction steps indicates the dialpad button that selects an option.

Example: Press

#

When you see a dialpad button it represents the button you are to press to proceed.

Angled Brackets

Some information is descriptive information that is entered using the dialpad. This descriptive information is always enclosed in angled brackets.

Example: Enter <mailbox owner last name and first initials>

The information in angled brackets **describes** what you should enter. In the example above, you would enter a user's last name and first initial by pressing the dialpad buttons on your Norstar telephone.

2 - 2 Section 2: Learning About StarTalk

About
StarTalk

The second component of StarTalk is mailboxes. Mailboxes are added by the System Coordinator and then initialized by the mailbox owner. Any caller can leave a message once a mailbox is initialized.

Each mailbox owner can customize a personal mailbox with special StarTalk options. The mailbox options are:

- Primary and Alternate Greetings
- Password Protection
- Record Company Directory Name

Who
Can Use
StarTalk

StarTalk can be used by any outside caller, and by mailbox owners in your company. When you are away from your company StarTalk can be used with any tone dial telephone. Inside your company, StarTalk can be used from any Norstar telephone or tone dial telephone connected to your company's Norstar Business Communication system.

Even outside callers using a rotary dial telephone are able to use StarTalk. When a caller uses StarTalk from a rotary dial telephone, StarTalk transfers the caller to your company receptionist or designated operator. If a receptionist or designated operator is not available to answer the call, the caller is transferred to StarTalk's General Delivery mailbox.

About the
StarTalk
Feature
Codes

When you are using StarTalk from a Norstar telephone you must enter a Feature Code.

Feature Codes are used to access the different features and options of StarTalk. In order to use a StarTalk feature, a Feature Code must first be entered.

The user Feature Codes that work with StarTalk are shown in Table 2.1.

Feature	Operation
Feature 980	Leave Message
Feature 981	Open Mailbox
Feature 982	Operator Status
Feature 985	StarTalk Directory Number (DN)

Table 2.1 - Feature Codes

StarTalk Reference Guide

Feature
Code
Descriptions

Leave Message Feature Code

Is used by mailbox owners to leave a message in a mailbox initialized with StarTalk. This Feature Code can also be used to transfer a caller to a mailbox initialized with StarTalk.

To use the Leave Message feature, press

Feature 980 8TUN 0 CR

Open Mailbox Feature Code

Is used by mailbox owners to open their personal mailboxes. All personal mailboxes are protected by a password that is established by the mailbox owner.

To use the Open Mailbox feature, press

Feature 981 8TUN 1

Operator Status Feature Code

Is used by the System Coordinator, receptionist, or designated operator to set the operator status. When an operator is not available the operator status must be set to NO. This alerts the Automated Attendant that the receptionist or designated operator is not available. This Feature Code is also used to establish whether a business is open or closed, and to designate the operator's extension. This Feature Code is protected by a password.

To set the operator status, press

Feature 982 8TUN 2 ABC

StarTalk Directory Number (DN) Feature Code

Is used to determine StarTalk's station number. This number is used for forwarding a Norstar telephone to StarTalk, and for using StarTalk with an Analog Terminal Adapter (ATA).

To use the StarTalk DN Feature Code, press

Feature 985 8TUN 5 AL

StarTalk Feature Codes can be programmed for single button access. For information on programming StarTalk Feature Codes refer to **Programming a Feature Code Memory Button**, later in this section.

About
StarTalk

About the Automated Attendant

The Automated Attendant is the StarTalk receptionist. When enabled, the Automated Attendant answers your company's incoming telephone lines according to the time of day. From the Automated Attendant a caller can:

- reach an extension or a mailbox in your company
- leave a message in a mailbox
- select the alternate language (if equipped)
- look for an extension or mailbox in the Company Directory
- reach your company receptionist or designated operator
- open a personal mailbox as a mailbox owner

The Automated Attendant provides callers with commands to use each of these options. A caller must press the button associated with the option they want to activate. For example, to use the Company Directory, press **[#]**.

About the Company Directory

The Company Directory is a list of mailbox owners registered with StarTalk. Membership in the Company Directory is established when mailbox owners initialize their mailboxes. Before any mailboxes can be used, the owners must record their names in the Company Directory. If mailbox owners do not want their name to appear in the Company Directory they can see the System Coordinator.

Any two line display Norstar telephone user can access the Company Directory by selecting **[DIR]** when the display shows the Directory option. You can also use the Company Directory when the voice prompt announces the option. In either case, you can press **[#]** on any tone dial telephone to access your company's Directory.

Once you have opened the Company Directory, you can enter the last name of a mailbox owner or you can press **[*]** to view all the names. When you view the members of the Company Directory the Norstar display shows the first name in the Directory. To see the next name you must press **[*]**.

About the Mailboxes

There are two groups of StarTalk mailboxes:

- Special Mailboxes
- Personal Mailboxes

The Special Mailboxes

The Special Mailboxes are administered by your company's System Coordinator. The Special mailboxes include:

- System Coordinator Mailbox
- General Delivery Mailbox
- Trouble Mailbox

The System Coordinator Mailbox

This mailbox is used by your System Coordinator as a personal mailbox. You can leave messages for your company's System Coordinator in this mailbox.

The mailbox number is preset to 102. Mailbox number 102 is StarTalk's default number. If your company uses a mailbox number length of 2 digits, the System Coordinator's mailbox number is 12. If your company uses a mailbox number length of 4 digits, the System Coordinator's mailbox number is 1002.

General Delivery Mailbox

This mailbox is used to collect messages from callers who use a rotary dial telephone, individuals in your company that do not have personal mailboxes, and for mailbox owners whose mailboxes are full. Your company's receptionist or System Coordinator will route messages left in the General Delivery mailbox using StarTalk's COPY and FORWARD options.

The General Delivery mailbox number is 100. If your company uses a mailbox number length of 2 digits, the General Delivery mailbox number is 10. If your company uses a mailbox number length of 4 digits, the General Delivery mailbox number is 1000.

Trouble Mailbox

This mailbox is used to report problems that might be encountered when you are using StarTalk. If you come across a problem, report the problem to the Trouble Mailbox. The Trouble Mailbox number is 101.

If your company uses a mailbox number length of 2 digits, the Trouble Mailbox number is 11. If your company uses a mailbox number length of 4 digits, the Trouble Mailbox number is 1001.

For more information about the Special Mailboxes, refer to StarTalk's Set Up and Operation Guide. The Trouble Mailbox is described in Section 6, Troubleshooting, later in this guide.

Personal Mailboxes

Personal mailboxes are assigned by your System Coordinator and maintained by the mailbox owner. StarTalk can have up to 200 personal mailboxes. For more information about your personal mailbox features and options refer to Section 3, Your Personal Mailbox.

Mailbox Rules

Only a few rules apply to the StarTalk mailboxes. Remembering these rules will make using your StarTalk mailbox a simple, everyday task.

The mailbox rules are:

1. You must always enter a password.
2. A mailbox can be opened from any Norstar telephone from the **Log:** display prompt, by entering the mailbox number and password combination.

When a mailbox is assigned to a Norstar telephone, the display always shows the **Pass:** prompt. To reach the **Log:** prompt, press **OTHR** or *****.

When a Norstar single line display is being used, press ***** to reach the **Log:** display prompt.

3. A mailbox must be initialized before it can be used.

Using the Norstar Dialpad

The buttons on the dialpad act as both numbers and letters. Each button represents a number and also represents letters of the alphabet.

StarTalk knows when an alphabet letter is required. When an alphabetical entry is required on the command line of the display, press the dialpad button that represents the letter. The letters will appear on the display in the order listed on the number button.

If a letter appears that is not the correct letter, press the button again. To accept the letter, press *****. To insert a comma, press ***** *****.

The Norstar Dialpad is shown in Figure 2.1.

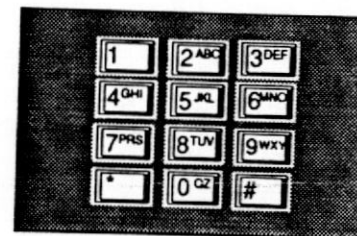


Figure 2.1 - Norstar Dialpad

When you are entering a name using the Company Directory option, you need only to press the number button associated with the letters of the name once. You do not need to enter a comma. For example, if you are looking for the last name Taylor, you would press:



When you are looking for a mailbox owner using the Company Directory, you can find the name by entering the first four letters of the last name. If StarTalk cannot find the name the first time, you can select the next name in the Directory until the mailbox owner is found or you can enter the last name again.

Note: If you are trying to find a mailbox owner with less than four letters in the last name, for example Fry, press the buttons on the dialpad that spell the entire last name, and press **OK** or *****. If the display does not show the correct name, press **NEXT** or **1** until you find the mailbox owner.

Using StarTalk With a Two Line Display

The Norstar two line display on M7310 and M7324 telephones provides information about options and commands that are available when you are using StarTalk.

The display can provide up to three display button options at a time. In some instances, you must wait for the voice prompt to play the other available options. In those instances when options are played by the voice prompt and the corresponding button does not appear on the display, you must select the option using the numbers on the dialpad.

The Norstar two line display is shown in Figure 2.2.

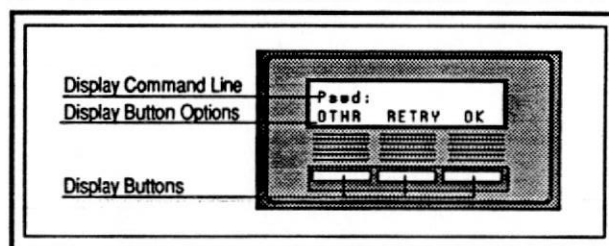


Figure 2.2 - Norstar Two Line Display

Using StarTalk With a Single Line Display

A Norstar telephone with a single line display can be used for any StarTalk session. If you are using a Norstar telephone with a single line display, the display shows only the StarTalk command.

All options are given immediately through the StarTalk voice prompts and your options are selected using the dialpad only. Once you become familiar with StarTalk's options, you do not need to wait for the voice prompt to complete the option list, you can interrupt the voice prompt and make your selection immediately.

About the StarTalk Voice Prompts

Each command that is shown on the Norstar display is accompanied by a voice prompt. On a Norstar two line display telephone, the voice prompt plays after a five second delay. On a Norstar single line display telephone, the voice prompt plays immediately. When you do not select an option within four seconds, the voice prompt replays the StarTalk options.

StarTalk voice prompts provide the same options as the display button options, and additional options not appearing on the display. When the voice prompt plays the available options, it only provides the dialpad number buttons that activate the options.

When the voice prompt announces a display option with a corresponding dialpad button, you can use the display buttons or the numbers on the dialpad. Either button will activate the selected option.

Interrupting a Voice Prompt

Voice prompts can be interrupted by selecting an option on the display or dialpad. A voice prompt can also be stopped by pressing **[*]**. You cannot interrupt a prompt that is informing you of an error. A voice prompt can be replayed by pressing **[*]**. When a Norstar single or two line display telephone is being used, pressing **[*]** backs up the display to the previous display prompt.

Exiting From StarTalk

You can exit from StarTalk by:

1. Hanging up the receiver.
2. Pressing an alternate line button.
3. Pressing **[Rls]**

Program- ming a Feature Code Memory Button

Norstar enables you to program each of StarTalk's Feature Codes to a single memory button. Once programmed, the StarTalk Feature Codes are easily accessible using a single button on your Norstar telephone.

The most frequently used StarTalk Feature Codes are:

- | | |
|-------------------|-------------|
| • Leave Message | Feature 980 |
| • Open Mailbox | Feature 981 |
| • Operator Status | Feature 982 |

To program a memory button:

1. Press **Feature** ***** **3DEF**

The display shows:



2. Select a programmable button.
3. Press **Feature**
4. Enter the StarTalk Feature Code number. For example, 980.

The display shows:



5. Label the button with the Feature Code description using the paper labels provided with your Norstar telephone.

Repeat steps 1 through 5 for each StarTalk Feature Code you want to program.

Your Personal Mailbox

3

Introduction

StarTalk is a fully automated receptionist service that offers call routing and message taking services. This section describes how StarTalk works and covers:

- personalizing your mailbox
- initializing your mailbox
- recording your Primary and Alternate greetings
- selecting a mailbox greeting
- telephone etiquette
- listening to messages
- recording a message
- mailbox administration
- options
- changing your mailbox password

Personalizing Your Mailbox

Personalizing your mailbox involves initializing your mailbox to receive messages, and recording and selecting greetings that will make your mailbox uniquely your own. Personalizing your mailbox consists of:

- initializing your mailbox
- recording your Primary greeting
- recording your Alternate greeting
- choosing which greeting you want StarTalk to play

Initializing Your Mailbox

Initializing a mailbox prepares the mailbox to receive messages. A mailbox cannot receive and store messages until it has been initialized. Initializing a mailbox involves:

- changing the StarTalk default password
When your company's System Coordinator registers a mailbox, it is given a StarTalk default password. For all new mailboxes, this password is 0000 (four zeros).
- recording your name in the Company Directory
This establishes your "voice" name in a directory that is used by other StarTalk users and outside callers who search through the Company Directory. **Note:** If you do not want your name to appear in the Company Directory, see your System Coordinator.

To initialize your personal mailbox:

1. Press **Feature** **9** **8** **1**

2. The display shows:

Pass:
0THR RETRY OK

3. **Note:** If you are using a Norstar telephone that has not been assigned to you, you must press **0THR** to access the **Log:** display prompt. From the **Log:** display prompt, enter your mailbox number and the default password.

2. Enter the default password 0000

3. Press **OK** or **#**

The display shows:

Must change pswd

4. Enter your personal mailbox password.
Note: Your password must be between 4 to 8 digits long. A password cannot start with zero (0).

5. To end your password, press **OK** or **#**

The display shows:

Accept password?
YES NO QUIT

6. To accept your password, press **YES** or **#**

The display shows:

Must record name

7. At the tone, record your name.
Note: When you record your name, remember to speak clearly at a pace that is easy to understand. It is a good idea to include your mailbox number in your Company Directory recording. For example, "Marina Franco, mailbox number 421."

8. To end your recording, press **OK** or **#**

The display shows:

Accept name?
RETRY PLAY OK

Note: To replay your recording before accepting it, press

PLAY or **1**

To re-record your recording, press **RETRY** or **2 ABC**

9. To accept your recording, press **OK** or **#**

The display shows:

0 messages
PLAY REC ADMIN

10. Once your mailbox is initialized you must record and select your personal mailbox greeting. For instructions, refer to pages 3-6 through 3-10 later in this section.

Your mailbox is now ready to receive messages. You can change both your password and your Company Directory name at any time. To change your password refer to **Changing Your Mailbox Password**, later in this section. To change your Company Directory recording refer to **Changing a Company Directory Recording**, later in this section.

Your Personal Greetings

Personal greetings are played to callers who choose to leave a message in your mailbox. There are two types of personal greetings: your Primary and Alternate greetings.

The purpose of both greetings is to inform callers that they have reached the correct mailbox—yours—and to give callers any necessary information or instructions. You can change Primary and Alternate greetings at any time.

When you record your Primary and Alternate greetings you should include your name, extension, and a brief explanation that you are unable to answer the call personally. You can include in your Alternate mailbox greeting how long you plan to be away from your desk or office, whether or not you are away on a business trip, vacation, or sick leave. You should also assure callers that their messages will receive your prompt attention.

When recording your personal greetings, remember to speak clearly with a pleasant voice, at a pace that is easy to understand. Do not speak too softly or too loudly or make your greeting too lengthy. After recording a greeting, you should replay the greeting before accepting it to ensure the recording sounds the way you intended.

You can record or change a greeting from any Norstar telephone or, if you are away from the office, from any tone dial telephone.

Note: Whenever you are recording a greeting, do not use Norstar's Handsfree feature. A better recording results if you speak directly into the handset.

Primary Mailbox Greetings

Your primary mailbox greeting is recorded for everyday use. This greeting should include your name and a brief message explaining to callers that you are unable to answer their call. Recording your greeting with a friendly voice and the details of when you will be back at your desk to take calls will encourage callers to leave you a message. For example:

"Hi. This is Paul Wayne. I'm not able to take your call right now. Please leave me a message and I will return your call as soon as possible."

If you are a new mailbox owner, you should record your primary greeting immediately.

Alternate Mailbox Greetings

In special circumstances, such as business trips, vacation, or sick leave, you will want to leave callers special information. For this reason, StarTalk is able to provide you with an alternate greeting. This greeting is called the Alternate mailbox greeting. For example:

"Hi. This is Paul Wayne. I am out of the office until Thursday December 17. Although I am out of the office, I do check my mailbox daily. Please leave me a message and I will return your call as soon as possible. Thank you."

You can select which greeting you want StarTalk to play. You can change the selection whenever and as often as needed. Because the Alternate greeting is normally used for special circumstances, you do not have to record one until the need arises.

Important: After you have recorded your greetings, you must choose the greeting to be played. If you do not choose a greeting, *neither* greeting will be played. Whenever you choose the Alternate greeting, remember to change back to the Primary greeting when your circumstances return to normal.

Recording Your Primary Greeting

To record your Primary mailbox greeting:

1. Press **Feature** **9** **8** **7** **1**

The display shows:

Pwd:		
OTHR	RETRY	OK

2. Enter <your password>
Note: Your unique password was determined when you first opened your mailbox and performed the initialization steps. If you are recording a greeting from a Norstar telephone extension that has not been assigned to your personal mailbox, press **OTHR**. The display shows the **Log:** prompt. When this prompt appears, enter your mailbox number and password combination. Press **OK** or **#**.

3. Press **OK** or **#**

The display shows:

0 messages		
PLAY	REC	ADMIN

4. Press **ADMIN** or **8** **7** **1**

The display shows:

Mailbox admin		
GREET	PSWD	QUIT

5. Press **GREET** or **2** **ABC**

The display shows:

Greeting options	
RECORD	CHOOSE

6. Press **RECORD** or **1**

The display shows:

Greeting:	
PRIME	ALT

7. Press **PRIME** or **1**

Note: If you are changing your Primary greeting, your current recorded greeting begins to play.

The display shows:

Record new?		
YES	NO	QUIT

8. Press **YES** or **1**

The display shows:

Record greeting:	
------------------	--

9. At the tone, record your greeting.

10. Press **OK** or **#** to end your recording.

The display shows:

Accept greeting?		
RETRY	PLAY	OK

11. You now have options to **RETRY** (re-record) the greeting, **PLAY** the greeting back, or **OK** (accept) the greeting. Once you are satisfied with the greeting, press **OK** or **#** to return to the **Mailbox admin** prompt.

Your Primary personal greeting is now recorded.

Once your greeting is recorded, you must select which greeting you are going to play. Refer to **Selecting a Personal Greeting**, later in this section.

Your
Personal
StarTalk
Mailbox

Your
Personal
StarTalk
Mailbox

Recording Your Alternate Greeting

An Alternate greeting is normally used as a temporary greeting for occasions when you are away from the office or at a different company location for an extended period of time. You do not need to record an Alternate greeting until such a situation occurs.

To record an Alternate greeting:

1. Press **Feature** **9** **8** **1**

The display shows:

Pswd:		
OTHR	RETRY	OK

2. Enter <your password>

Note: Your unique password was determined when you first opened your mailbox and performed the initialization steps. If you are recording a greeting from a Norstar telephone extension that has not been assigned to your personal mailbox, press **OTHR**. The display shows the **Log:** prompt. When this prompt appears, enter your mailbox number and password combination. Press **OK** or **#**.

3. Press **OK** or **#**

The display shows:

0 messages		
PLAY	REC	ADMIN

4. Press **ADMIN** or **8**

The display shows:

Mailbox	admin	
GREET	PSWD	QUIT

5. Press **GREET** or **2**

The display shows:

Greeting options	
RECORD	CHOOSE

6. Press **RECORD** or **1**

The display shows:

Greeting:	
PRIME	ALT

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7. Press **ALT** or **2**

Note: If you are changing your Alternate greeting, your current recorded Alternate greeting begins to play.

The display shows:

Record new?		
YES	NO	QUIT

8. Press **YES** or **1**

The display shows:

Record greeting:	
------------------	--

9. At the tone, record your greeting.

10. Press **OK** or **#** to end your recording.

The display shows:

Accept greeting?		
RETRY	PLAY	OK

11. After recording your greeting you can **RETRY** (re-record) the greeting, **PLAY** the greeting back, or **OK** (accept) the greeting. Once you are satisfied with the greeting, press **OK** or **#** to return to the **Mailbox admin** prompt.

You are now finished recording your Alternate mailbox greeting. Refer to **Selecting a Personal Greeting**, later in this Section.

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Selecting a Personal Greeting In order for a Primary or Alternate greeting to play, you must select a greeting. If you do not choose a greeting, *neither* greeting will play. If you choose the Alternate greeting, remember to change back to the Primary greeting at the appropriate time.

To choose a Primary or Alternate greeting:

1. Press **Feature** **9** **8** **1**

The display shows:

Pass:
OTHR RETRY OK

2. Enter <your password>
Note: Your unique password was determined when you first opened your mailbox and performed the initialization steps. If you are recording a greeting from a Norstar telephone extension that has not been assigned to your personal mailbox, press **OTHR**.
The display shows the **Log:** prompt. When this prompt appears, enter your mailbox number and password combination. Press **OK** or **#**.

3. Press **OK** or **#**

4. Press **ADMIN** or **8**

The display shows:

Mailbox admin
GREET PSWD QUIT

5. Press **GREET** or **2**

The display shows:

Greeting options
RECORD CHOOSE

6. Press **CHOOSE** or **2**
The display shows:

Use greeting:
PRIME ALT QUIT

7. Select the greeting you want played.
To select the primary greeting, press **PRIME** or **1**.
To select the alternate greeting, press **ALT** or **2**.
Note: If you have selected a greeting that is not yet recorded, you are transferred back to the Greeting option to record the greeting.

Your personal mailbox greeting is now selected and will play each time a caller chooses to leave a message in your mailbox. Remember, if you have selected your Alternate mailbox greeting, do not forget to select your Primary greeting when your situation changes.

Mailbox Options

StarTalk's Open Mailbox Feature is powerful, easy to use, and designed to increase office productivity. Following is a description of all the options you can use with this feature.

To open your mailbox:

1. Press **Feature** **9** **8** **1** and enter your password.

If you are calling from an outside telephone, press **Feature** **9** **8** to open your mailbox. At the prompt, enter your mailbox number and password.

If you are calling from a StarTalk telephone other than your own, when the display shows the **Passd:** prompt, press **OTHR**. The display shows: **Log:**

Once in your mailbox, you can choose from five options. These options are referred to as the main mailbox menu.

2 ABC **Listening to your messages** Selecting the Play option tells StarTalk to begin playing the messages in your mailbox. When someone sends you a message, your telephone display shows **Message for you**. After opening your mailbox, the number of mailbox messages is shown on the Norstar display. The messages are played in the order received from first message (oldest) to last (most recent). If you have both old and new messages in your mailbox, the new messages will be played last. Broadcast messages are played automatically when you first open your mailbox.

3 DEF **Recording a message** Use this option to record a message and send it to one or more StarTalk mailboxes.

8 TUV **Mailbox Administration** With the Mailbox Administration options you can record your name in the Company Directory, record and select Primary and Alternate personal greetings, and change your password.

0 CR **Operator** This option transfers you from your mailbox to an internal operator, if one is available. This option does not appear on your display.

**To Use the Automated Attendant** This option transfers you to the Automated Attendant. This option does not appear on your display.

Listening to Your Messages

Once you select the Play option, your messages will begin playing automatically. One set of options is available while a message is playing, and another set after a message has played through to the end.

Options While a Message Is Playing

While you are listening to a message, you can:

1 **1** **Replay** This option rewinds the message to the beginning and plays it again. Press **<<<** **<<<** on the display.

1 **Backup** This option backs up (rewinds) the message 9 seconds and resumes playing the message from that point, or press **<<<** on the display.

2 ABC **Pause/Continue** This option temporarily stops a message that is playing. When you stop the message, you have the option to play the previous message, continue playing the current message, or skip to the next message. For broadcast messages, you can only continue to play the message. You can stop and continue to play a message as many times as you want.

3 DEF **3 DEF** **End of Message** This option allows you to skip all the way to the end of the message being played. To reach the end of the message, press **>>>** **>>>** on the display.

3 DEF **Forward** This option advances the message 9 seconds and continues playing from that point, or press **>>>** on the display.

4 GHI **Previous** This option stops playing the current message and begins playing the previous one. This option is not shown on the display.

5 JKL **Copy** This option allows you to send a copy of the message to one or more mailboxes. You can record an introduction to the message explaining why you are sending it. This option is not shown on the display.

6 MNO **Next** This option stops playing the current message and begins playing the next message in your mailbox. This option is not shown on the display.

Your
Personal
StarTalk
Mailbox

7 PRS

Envelope This option plays the information on the message's envelope. The envelope information is similar to that on a letter sent through the postal service. It includes the date and time the message was sent and, if the message was internal, the Directory name of the sender. This option is not shown on the display.

8 TVV

Erase This option deletes the message being played. If you do not delete a message, it stays in your mailbox indefinitely. Since your mailbox has limited message storage space, you should delete any messages you no longer need.

9 WXY

Reply This option allows you to reply to the message. Your reply to the sender can be either a message to the sender's mailbox, or a telephone call. StarTalk automatically sends your message to the sender's mailbox or dials the sender's extension. This option is not shown on the display and is not available for messages left by outside callers.

* □

Quit This option stops playing the message and replays the main mailbox menu options.

Options at the End of Message

After a mailbox message has played, you can:

1 □

Replay This option rewinds the message to the beginning and plays it again. This option is not shown on the display.

4 QW

Previous This option plays the previous message. The option is not shown on the display.

5 JKL

Copy This option allows you to send a copy of the message to one or more mailboxes. You can record an introduction to the message, explaining why you are forwarding it. If the message is from an inside caller, this option is not shown on the display.

6 MNO

Next This option plays the next message in your mailbox.

7 PRS

Envelope This option plays the information on the message's envelope. The envelope information is similar to that on a letter sent through the postal service. It includes the date and time the message was sent and, if the message was internal, the directory name of the sender. The option is not shown on the display.

8 TVV

Erase This option deletes the message just listened to. If you do not delete a message, it stays in your mailbox indefinitely. Since your mailbox has limited message storage capacity, you should delete messages you no longer need.

9 WXY

Reply This option allows you to reply to the message just listened to. Your reply to the sender can be either a message to the sender's mailbox, or a telephone call. StarTalk automatically sends your message to the sender's mailbox or dials the sender's extension. This option is not available for messages left by outside callers.

□

Next Message This option plays the next message in your mailbox. This option does not appear on the display.

* □

Quit This option stops playing the message and replays the main mailbox menu options.

Copy Option

When you select the option to forward a copy of a message to a mailbox, you are first asked to record an introduction to the message. When the message is listened to at the other end, your introduction is played first, followed immediately by the message.

When recording an introduction, you use options to indicate that you have finished recording, or to erase what you have recorded so far and start over. **Note:** When using the RETRY option on a Norstar single line display telephone, use the dialpad buttons.

After you finish recording the introduction, you have options to erase and re-record, play, or accept the introduction and send it, with the message, to a mailbox.

When you select SEND, you enter the mailbox number of the person you want to send the copy to or, if you do not know the mailbox number, you can find the mailbox owner in the Company Directory. If you change your mind about forwarding the message, you can select the QUIT option. This returns you to the Listen to Messages menu.

When you enter the mailbox number, your introduction and a copy of the message are automatically sent to the mailbox you selected. You then have options to send an additional copy of the introduction and the message to another mailbox, or to quit and return to the Listen to Messages menu. You can forward copies to as many mailboxes as you want.

Reply Options

You can reply to any message sent by a StarTalk user who has a mailbox. When you select the Reply option, you must first indicate how you want to reply to the message. You can reply by calling the message sender, or by sending a message of your own to the message sender's mailbox. If you change your mind, there is also an option to quit and return to the Listen to Messages menu.

If you select the CALL option, StarTalk dials the message sender's extension for you.

If you select the Message option, you begin recording your reply at the tone. While recording the message, you can:

RETRY **Retry** This option erases what you have recorded so far and starts the recording session again. This option is not available on a Norstar single line display telephone.

PAUSE **Pause/Continue** Selecting Pause temporarily stops the recording session. When you are ready to continue recording, select Continue. You can pause and continue as many as five times. If you are using a Norstar single line display telephone, press **2**.

**OK** This option ends the recording and sends your message reply.

When you have finished recording your reply, you can:

1 **Play** This option plays your recorded reply. As it is playing, you can select options to retry the recording, play it again, or send it.

2 **Retry** This option erases your recorded reply and starts the recording session again.

**Accept and Send** When you select this option, StarTalk automatically delivers your reply to the message sender's mailbox and returns you to the Listen to Messages menu.

Record a Message

The Record a Message option is available on the main mailbox menu. When you select this option, record your message at the tone. While recording, you have three options:

RETRY **Retry** This option erases what you have recorded so far and starts the recording session again. This option is not available on a Norstar single line display telephone.

PAUSE **Pause/Continue** Selecting Pause temporarily stops the recording session. When you are ready to continue recording, select Continue. You can pause and continue as many as five times. This option is not available on a Norstar single line display telephone.

**OK** Select this option to tell StarTalk you have finished recording your message.

When you have finished recording your message, you can:

1 **Play** This option plays your recorded message. As it is playing, you can select options to retry the recording, play it again, or send it.

2 **Retry** This option erases your recorded message and starts the recording session again.

**Send** This option allows you to send your recorded message to one or more mailboxes. When you select the SEND option, you enter the mailbox number of the person you want to send the message to or, if you do not know the mailbox number, you can use the Company Directory option.

***** **Quit** This option erases the message and replays the Main Mailbox menu options.

After you have sent your message, you can send a copy of the message to another mailbox, or you can quit and select another option from the mailbox main menu. If you choose to send a copy of the message you recorded to another mailbox, you are asked to enter a mailbox number, as before.

Mailbox Administration

There are three Mailbox Administration options:

- **Directory Name** This option is used to record or re-record your name in the Company Directory. The option does not appear on your display.
- **Greetings** This option is used to record your Primary and Alternate greetings, and to choose which greeting you want played.
- **Password** This option allows you to change your mailbox password.

Recording a Company Directory Name

This option allows you to change your Company Directory name. To use this option, you must open your mailbox using StarTalk's Open Mailbox feature.

To record your Company Directory name:

1. Press **Feature** **9** **8** **7** **1**

2. Enter <your mailbox password>

3. Press **OK** or **#**
The display shows:

```
x messages
PLAY REC ADMIN
```

4. Press **ADMIN** or **8**
The display shows:

```
Mailbox admin
GREET PSWD QUIT
```

5. Press **1**

Note: This is a voice prompt option. It does not appear on the option line of a Norstar two line display telephone.

6. At the tone, record your name.

Note: It is a good idea to include your mailbox (extension) number in your recording.

7. To end your recording, press **OK** or **#**

Selecting a Greeting

8. To accept your recording, press **OK** or **#**

While recording your Company Directory name, you can:

RETRY **Retry** This option erases what you have recorded so far and starts the recording session again. This option is not available on a Norstar single line display telephone.

**OK** Select this option to tell StarTalk you have finished recording your name.

When you have completed recording your name, you can:

1 **Play** This option plays your recorded name. As it is playing, you can select options to retry the recording, play it again, or accept it.

2 **Retry** This option erases your recorded name and starts the recording session again.

**OK** This option tells StarTalk you are satisfied with the recorded name. If the System Coordinator has assigned your name to appear in the Company Directory, the recording is automatically placed in the Company Directory.

***** **Quit** This option erases the message and replays the Mailbox Administration menu options.

Greeting Options

You have two Greeting options:

- ☐ **Record** This option allows you to record your Primary or Alternate greetings.
- ☐ **Choose** This option is used to tell StarTalk which greeting to play. **Note:** If you do not choose a greeting, *neither* greeting will be played.

Record Option

When you select the Record option, indicate whether you want to record your Primary or Alternate greeting.

If you have a recorded greeting, it begins to play.

After the greeting has played, or if you have no recorded greeting, you are given options for recording a new greeting:

- ☐ **Yes** Selecting this option tells StarTalk to begin a recording session.
- ☐ **NO** This option returns you to the Greetings menu. This option is not available on a Norstar single line display telephone.
- ☐ **Quit** This option stops playing the message and replays the Mailbox Administration menu options.

When you have finished recording your greeting, you can:

- ☐ **Play** This option plays your recorded greeting. As it is playing, you can select options to retry the recording, play it again, or accept it.
- ☐ **Retry** This option erases your recorded greeting and starts the recording session again.
- ☐ **OK** Selecting this option tells StarTalk you are satisfied with the recorded greeting. You are returned to the Main Mailbox menu.

Your
Personal
StarTalk
Mailbox

Selecting a Greeting

When selecting which greeting is going to play, you can choose:

- ☐ **Primary** This option tells StarTalk to play your primary greeting to all callers.
- ☐ **Alternate** This option tells StarTalk to play your alternate greeting to all callers.
- ☐ **Quit** This option returns you to the Greetings options menu. If you choose a greeting that has not yet been recorded, you are automatically transferred back to the Greeting option menu to record your greeting.

☐ **Quit** This option returns you to the Mailbox Administration menu.

Your
Personal
StarTalk
Mailbox

Changing Your Mailbox Password

Your password was created when you first initialized your mailbox. Your mailbox password can be changed at any time. Keep your password in a safe place, and try to avoid giving it to your co-workers. When determining what your password will be, remember, a password must be between 4 and 8 digits long. A password cannot start with zero (0).

To change your password:

- Press **Feature** **9** **8** **7** **6** **5**

The display shows:

Pswd:
OTHR RETRY OK

- Enter <your old password>
- Press **OK** or **#**
- Press **ADMIN** or **8**

The display shows:

Mailbox admin
GREET PSWD QUIT

- Press **PSWD** or **4**

6. Enter <your new mailbox password>

7. To end your password, press **OK** or **#**

The display shows:

Accept	password?
YES	NO QUIT

8. To accept your new password, press **YES** or **#**

While you are entering your new password, you can:

***** **Retry** This option erases what you have entered so far and starts password entry over again.

**OK** Select this option to tell StarTalk you have finished entering your new password.

When you have finished entering your new password, you are given three options:

**Yes** Selecting this option tells StarTalk you are satisfied with the new password. The new password is installed and you are returned to the Mailbox Administration menu.

NO **No** This option erases the password you just entered and starts password entry over again. This option is not available on a Norstar single line display telephone.

***** **Quit** This option erases the password you just entered and returns you to the Mailbox Administration menu. Your password is not changed.

StarTalk's Leave Message Feature

4

Introduction StarTalk's Leave Message feature is used inside your company to quickly access another user's mailbox. Using this feature you can:

- leave a message
- search through the Company Directory
- open your personal mailbox
- transfer an outside caller to a mailbox

This section describes each of the options contained in the StarTalk Leave Message feature. It also describes the different types of messages that you are able to send, and the types of messages you might receive in your own personal mailbox.

The
Leave
Message
Feature

Using the Leave Message Feature

StarTalk's Leave Message feature is assigned a special three digit code similar to the Open Mailbox Feature Code. The Feature Code for the Leave Message feature is 980.

To use the Leave Message Feature Code, press **Feature** **9** **8** **0**

The Leave Message display shows:

Box:	
DIR	QUIT

Note: If you are using a single line display telephone, the option line showing DIR and QUIT does not appear. These options are played immediately by the StarTalk voice prompt. To use the Company Directory, press **#**. To end the StarTalk session, press **Ris**.

The voice prompts instruct you through each step of leaving your message.

Using the Company Directory Option

The Company Directory option allows you to search through the list of registered mailbox owners by entering their last names on the dialpad buttons.

Note: If you are leaving a message to a Group List, ensure that you get a mailbox list from the System Coordinator. This list shows you all the mailboxes contained in the Group. For more information about Group Lists refer to **The Different Types of StarTalk Messages**, later in this Section.

Selecting the Company Directory Option

To select the Company Directory option from the Automated Attendant:

1. Press **DIR** or **#**.
The display shows:

Last name: OK

2. Using the dialpad, enter the first four letters of the mailbox owner's last name.
The display shows:

<None>
RETRY NEXT OK

Note: When the mailbox owner has less than four letters in their last name, you must spell out the entire last name, then press **#**.

3. To accept this mailbox owner, press **OK** or **#**.

If you are using a Norstar display telephone, the mailbox owner's name appears on the command line. After you have accepted the mailbox owner, you are greeted with the mailbox owner's personal greeting.

Note: When a mailbox owner does not have a personal greeting recorded and selected, the Company Directory recorded name plays.

Leaving a Message From a Norstar Telephone

Once you have opened the Leave Message feature and entered a mailbox number, the mailbox owner's name appears on the display. At this point, you can choose to leave a message for this mailbox owner, or you can select another mailbox.

To accept the mailbox and leave a message:

1. Press **OK** or **2 ABC**.

Once you have accepted the mailbox, you are greeted with one of the mailbox owner's personal greetings.

The display shows the mailbox owner's name and changes to show:

Record message:

2. At the tone, record your message.
Note: Remember to speak clearly at a pace that is easy to understand.
The display changes to show:

Record message:
RETRY PAUSE OK

To temporarily stop your message, press **PAUSE** or **2 ABC**.

If you need to re-record your message, press **RETRY**.

3. To end your recording, press **OK** or **#**.
The display shows:

Message options:
RETRY PLAY SEND

After you have ended your message the StarTalk message options allow you to play and accept or retry the recording, and send your message.

4 - 4 Section 4: Leaving a Message

To **PLAY** your message, press **PLAY** or **1**.
This allows you to listen to the message you just recorded. Playing a message ensures that your message contains all the details you wanted. You can also check to see if any background noise made your message inaudible. While you are playing your recorded message you can retry the recording, play it again, or send the message to the mailbox you selected.

To **RETRY** your message, press **RETRY** or **2**.
This allows you to re-record your message.

To **SEND** your message, press **SEND** or **#**.
This sends the message directly into the mailbox you selected.

To cancel recording and select another mailbox, press *****.

To send your message and reach an operator, press **0**.
This sends your message to the mailbox, and then transfers you to your company's receptionist or designated StarTalk operator.

4. The display shows:



To leave another message in a new mailbox, press **NEW** or **1**.

Opening Your Mailbox After Leaving a Message

After you have left a message in a StarTalk mailbox you have the option to open your personal mailbox.

To open your personal mailbox after leaving a message:

1. Press **MBOX** or *****.
The display shows:



2. Enter <your mailbox password>

Section 4: Leaving a Message 4 - 5

Transferring a Caller to a StarTalk Mailbox

Whenever you have a caller on your line, and the caller wants to speak to another person in your company, you can transfer the caller to a mailbox using the Leave Message feature.

To transfer a caller while you have the caller on your line:

1. Press **Feature** **9** **WXY** **8** **TUV** **0** **OK**.
2. Enter the mailbox number or use the Company Directory.
Note: If you enter the mailbox number, do not press **OK**. If you use the Company Directory, press **OK** only once.
3. Press **Cont/Trans**.
4. Press the line on hold.
Note: The held line has a flashing indicator.
5. Hang up the receiver or press **RLs**.

The Different Types of StarTalk Messages

There are two types of messages that you can send:

- a single message to a mailbox
- a group message

Since we have already told you about sending a message, the following section only discusses sending the same message to several mailboxes.

StarTalk's Group Message

A group message sends the same message to several mailboxes contained in a Group List. All the Group Lists have been created by your company's System Coordinator.

About the Group List

A Group List is a collection of mailbox numbers. When you send a message to a Group List, each mailbox that is included in the Group List receives the same message. Your System Coordinator should publish a list of the mailboxes in each Group List so that each mailbox owner knows which mailboxes receive the Group List message.

One exception to this rule is if your mailbox is part of the Group List. When you are a member of a Group List, and you send a message to the mailboxes included in the List, your mailbox does not receive your message.

If you would like a Group List for your specific needs, ask your System Coordinator to create a Group List for you. When you give the System Coordinator the information, you should include:

1. All the mailbox owner's names.
2. A list of the mailbox numbers.
3. The Group List name.

The
Leave
Message
Feature

Broadcast Messages

There might be times when you open your personal mailbox, and a message plays immediately. Do not be alarmed. This is a Broadcast Message left by your System Coordinator. This special type of message can only be sent by your company's System Coordinator. After you listen to the entire message, it is deleted from your mailbox.

Telephone Etiquette

5

Introduction StarTalk is an easy to use, powerful voice messaging system. It is designed to save you time and increase your productivity on the job. This section describes some easy to follow guidelines for operating StarTalk.

Telephone Etiquette

To take advantage of StarTalk and its many features, please follow these suggestions:

Listen to your messages frequently. Paying prompt attention to your messages will encourage callers to use StarTalk and reassure them that this efficient form of communication is as reliable as speaking with you personally. You do not have to be at your desk to play your messages. You can do this from any tone dial telephone, anywhere. With StarTalk, your mailbox is as close as the nearest telephone.

Do not save old messages. There is a limited amount of message storage space both in your mailbox and within StarTalk. Do not save messages unless you need to listen to them again. When you are finished with a message, erase the message to free up storage space for yourself and other mailbox owners.

Keep a record of your password in a secure place. Treat your StarTalk password just as you would a secret code. Write down your password in a safe place. Do not keep your password near your telephone. If, for any reason, you let someone else have temporary access to your mailbox, change your password afterwards. If you forget your password, the System Coordinator can reset it to the default password 0000. You can then re-enter a new password.

When sending messages, make them short and to the point. Sending messages is a highly effective way of communicating with your co-workers. Over 75% of the time spent on a normal business telephone call consists of making small talk, pleasantries, and other socializing. Sending a message rather than making a call can save you time. Although you should avoid sounding hurried, impersonal, or rude, try to confine your messages to the essentials.

Telephone
Etiquette

Change your primary greeting frequently. Although StarTalk's alternate greeting feature makes it possible for you to have two recorded greetings, it is a good idea to change your primary greeting on a regular basis. Changing your greeting indicates that you listen to your messages and maintain your mailbox on a regular basis. Changing your primary greeting provides a personal touch that frequent callers will appreciate.

Make your alternate greeting specific. Choosing an alternate greeting usually means something out of the ordinary is happening. Your greeting should fully explain your situation without becoming too personal. If you are out of the office, specify when you expect to return. If you will be checking your mailbox even though you are out of the office, make that clear. If callers can reach you at another telephone number, ensure your message includes the telephone number and the length of the temporary arrangement. If you are going to be out of the office, remember to forward your telephone to StarTalk.

Take care when recording your greetings and messages. For a better quality recording, speak directly into the handset. Do not use the handsfree feature. Remember to speak clearly with a pleasant voice, at a pace that is easy to understand. Do not speak too softly or loudly or make the greeting or message too lengthy. After recording a greeting or message, you can play it back before accepting it to make sure the greeting or message sounds the way you intended.

Do not forget to use the "Copy" and "Reply" features. You can use StarTalk to send copies of messages to other mailboxes and reply to messages with a message of your own. When sending copies of messages to other people, ensure your introduction clearly explains why you are forwarding a copy of the message. Is the copy for information only? Should the message have originally been sent to the person to whom you are forwarding it? Whose responsibility is it to take action on the message?

Use Group Lists for multiple copies of messages. If you find that you regularly send the same message to several different people, ask the System Coordinator to create a Group List for you. Group Lists save time and effort. With a Group List, you can send the same message to all the mailboxes included in the Group List.

Encourage StarTalk use. Old habits are sometimes hard to break, and some people have difficulty accepting or even trying new technologies. Use your personal mailbox and other StarTalk features, and encourage your co-workers and frequent callers to use them too.

Report problems promptly. Should you encounter problems using StarTalk, report the trouble to the System Coordinator as soon as possible. Send a message to the System Coordinator or Trouble Mailbox and explain the problem.

Troubleshooting

6

Introduction This section describes some problems that might occur while you are using StarTalk. This section covers:

- Trouble Mailbox (mailbox 101)
- Full Mailboxes
- Lost Passwords
- Company Directory
- Time out

The problems you encounter while using StarTalk are usually operating problems. Sometimes a problem might occur that would indicate a system problem with the StarTalk module. When strange or unusual happenings occur that are not covered in this section, report them to your System Coordinator immediately.

Trouble Mailbox StarTalk's Trouble Mailbox is available to any StarTalk user who encounters problems operating the features, options, or mailboxes.

This Special Mailbox can be used to store messages that describe what the problem was and the time the problem occurred. If you encounter a problem using StarTalk, report your problem to the Trouble mailbox immediately.

The Automated Attendant seems to transfer some callers to the General Delivery Mailbox. StarTalk requires a tone signal and a minimum voice level. StarTalk waits 30 seconds for a caller to respond. If a response is not received within 30 seconds, the caller is automatically transferred to the receptionist or designated operator. If the operator is not available, the call is transferred to the General Delivery Mailbox.

It might be possible that two mailboxes are assigned the same extension number. Inform your System Coordinator and ask to verify that the correct extension and mailbox are assigned.

My telephone cannot be forwarded to StarTalk.

If you are attempting to forward your telephone to StarTalk and the display shows: **Forward denied** you might be forwarding to the wrong extension. Verify that you are calling the right StarTalk DN using Feature Code 985.

Feature 981 produces a 'LOG' prompt on my Norstar display.

Whenever the Log prompt appears on the display it can be caused by:

1. The station you are using might not have an operating mailbox. If the telephone does not have a mailbox, StarTalk will request both a Mailbox Number and a password.
2. A Guest mailbox, which normally does not have an assigned extension. Ask your System Coordinator to verify that your extension number is properly assigned to your mailbox.
3. The telephone you are using might have 2 or more mailboxes assigned to that extension. See your System Coordinator.

My mailbox is not accepting messages.

A mailbox will not accept messages when:

1. A mailbox is full.
When a mailbox is full you must delete all or some of the messages in the mailbox.
2. The mailbox is not initialized.
A mailbox cannot receive messages until it has been initialized by the mailbox owner. Initialize your mailbox. Refer to the StarTalk User Card, or refer to Section 3, Initializing your Mailbox.

I have forgotten my mailbox password.

A forgotten password cannot be recovered. Your old password must be reset to the default password 0000. Once the System Coordinator has reset your password, you must open your mailbox and change the default password.

My name is not played in the Company Directory.

Check to ensure that your mailbox has been initialized. If your mailbox is not initialized, your name is not played in the Company Directory, nor can your mailbox receive any messages. If you have recorded your Directory name, ask your System Coordinator to ensure that the Company Directory Override is not set to NO.

StarTalk Timeout

StarTalk's Timeout feature allows 5 seconds for you to make your option choice. When StarTalk does not detect an option selection, the Automated Attendant replays the option list. If an option is still not selected, StarTalk releases the StarTalk session.

Note: StarTalk has minimum voice level detection. When StarTalk does not detect an audio sound, it requests the caller to speak up. If no voice level is detected after the prompt, StarTalk transfers the caller to the receptionist or designated StarTalk operator.

Messages Cut Off

If people need to leave long messages in your mailbox (up to 7 minutes), you can ask the System Coordinator to assign a class of service to your mailbox which allows a longer maximum message length.

Mailbox Full Too Often

If you find that you need more message time in your mailbox, you can ask your System Coordinator to assign a Class of Service to your mailbox that allows a longer total message time in your mailbox.

Wrong Prompt Language

If the wrong language appears on the display prompt of your Norstar telephone, ask the System Coordinator to change your mailbox Class of Service.

Trouble
Shooting
StarTalk

6-4 Section 6: Troubleshooting

Trouble
Shooting
StarTalk

Glossary

Administering

The tasks involved in maintaining the StarTalk mailboxes, greetings and set up configuration.

Alternate Greeting

A greeting that is recorded for a personal mailbox and played only on exceptional occasions such as, absence, illness or vacation.

Attendant Sign On/Off

The task that is performed by a company receptionist or designated operator that indicates to StarTalk when an "operator" is available to answer calls.

Automated Attendant

The StarTalk answering service that answers incoming calls with a Company Greeting, plays a list of StarTalk options to a caller, and performs call routing functions in response to a caller's dialpad selections.

Broadcast Message

A message that can only be sent by the System Coordinator. This type of message is played in all initialized Personal Mailboxes and plays immediately when the mailbox is opened by the owner. It is automatically deleted once the mailbox owner listens to the message after opening the mailbox.

Business Status

A StarTalk setting that tells StarTalk whether a company is opened or closed for business.

Class of Service

A predetermined number designation that specifies the StarTalk options for a mailbox.

Company Directory

An internal voice list that contains the names of users with initialized mailboxes designated to appear in the Company Directory.

Conventions

The way certain information has been described. For example, using long boxes to represent display prompt information.

Default

The parameters that are preset within the StarTalk module.

Designated Operator

An individual in a company who has been assigned to answer the StarTalk operator request option.

Display

A one or two line screen that is on a Norstar telephone that shows StarTalk commands and options.

Display Buttons

The three buttons that appear on a Norstar two line display. Once pressed, these buttons select the specified StarTalk option.

Display Options

The choices available to a user that appear on the Norstar two line display. Options appearing on the display can be selected using the display or dialpad buttons.

Envelope Information

A date and time stamp that appears on all messages that are left in a mailbox. When the message has been left by another mailbox owner, envelope information includes the message sender's name.

Extensions

A two, three or four digit number that is used to reach a designated telephone.

Feature Code

A unique three digit code that is used to access StarTalk features and options.

General Delivery Mailbox

One of the three Special Mailboxes that is used to collect messages for individuals in a company that have not been assigned a Personal Mailbox.

Greetings

There are two types of StarTalk greetings: Company Greetings and Personal Mailbox Greetings. Company Greetings are played by the Automated Attendant to incoming callers. Personal Mailbox Greetings are played to callers who want to leave a message in the selected mailbox.

Group Lists

A collection of mailbox numbers that are assigned a special "Group" number by StarTalk. When a message is sent to a Group List, all mailboxes contained in the List receive the same message.

Guest Mailbox

A mailbox that is assigned to a user who does not have an extension.

Initialize Mailbox

Preparing a mailbox to receive messages, which includes changing a mailbox default password and recording a Company Directory name.

Leave Message

The StarTalk Feature Code that is used to leave messages in StarTalk mailboxes.

M7208 Telephone

The Norstar model M7208 telephone that has a single line display, and eight programmable buttons with indicators.

M7310 Telephone

The Norstar model M7310 telephone that has a two line display with three display buttons, 10 programmable buttons with indicators, and 12 dual programmable buttons without indicators.

M7324 Telephone

The Norstar model M7324 telephone that has a two line display with three display buttons, and 24 programmable buttons with indicators.

Mailbox

A storage place for messages on the StarTalk system.

Mailbox Number Length

The number of digits allowed in a mailbox number. The mailbox number length ranges from two to four digits.

Message Waiting Notification

A display prompt that informs a mailbox owner when a message has been left in a mailbox. This StarTalk feature is part of the Class of Service.

Operator Status

The StarTalk indicator that determines if a company's receptionist or designated operator is available.

Option

A StarTalk choice that is given to a user through voice or display prompts.

Password

A four to eight digit number that is entered using the dialpad which is used to open mailboxes or perform configuration tasks.

Personal Mailboxes

Mailboxes that are assigned to users for the storage of messages.

Primary Greeting

The main greeting played in a personal mailbox to callers wanting to leave a message.

Programmable Memory Buttons

Buttons on the Norstar one and two line display telephones that can store feature codes and numbers.

Resetting Passwords

A System Coordinator task that changes a mailbox password from its current setting back to the StarTalk default setting 0000 (four zeros).

Screened Call

An incoming call where the caller is asked to record their name and the name is played at the extension requested.

Special Mailboxes

The three mailboxes that are used by the System Coordinator and designated StarTalk operator. The three Special Mailboxes are: System Coordinator, General Delivery, and Trouble.

System Coordinator

The person responsible for configuring, updating, and maintaining the StarTalk Voice Module.

System Coordinator Mailbox

One of the three Special Mailboxes that is used by the System Coordinator for sending Broadcast Messages. This is the System Coordinator's Personal Mailbox.

Tone Dial Telephone

A push button telephone that emits DTMF tones.

Trouble Mailbox

One of the three Special Mailboxes that is used to collect messages concerning StarTalk operation and problems.

Voice Prompts

The prerecorded voice instructions that are played when accessing the different StarTalk features and options.

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A.T.A. USER CARD

ATA. U238 CARD

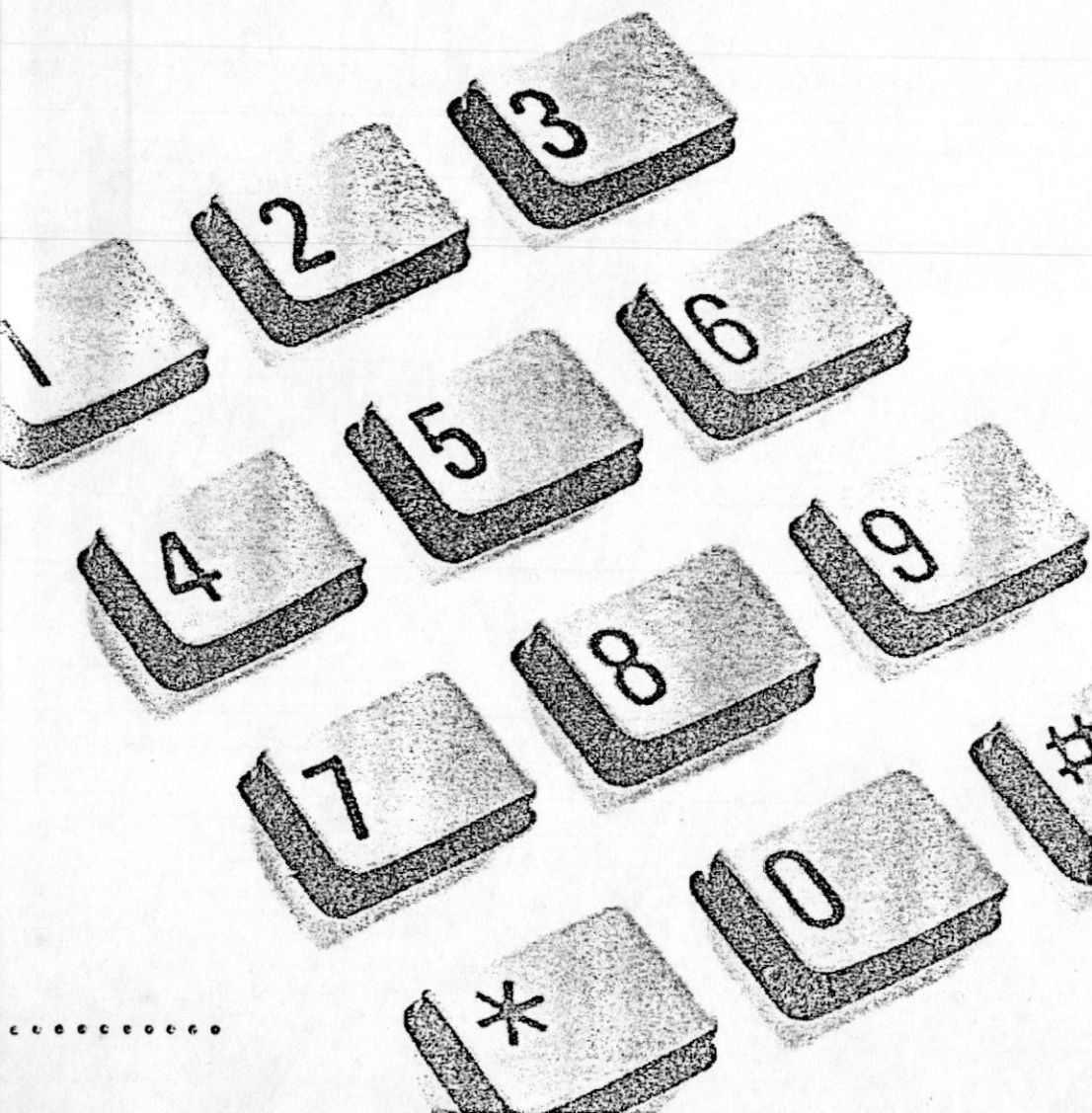
norstar

.....

ATA User Card

For use with:

Modular DR3, and Centrex



.....

About ATA

The Analog Terminal Adapter (ATA) connects a digital Meridian Norstar telephone port to a standard analog voice device, such as a single-line telephone, or a data communication device, such as a modem or facsimile machine. The ATA provides an on or off premise service.

This side of the card describes ATA features used with Norstar Modular DR3 and Centrex software. To use ATA features with 3X8, Compact DR1 and DR2, and Modular DR2 software, or for Troubleshooting, turn this card over and read the other side. To determine which version of Norstar software your system is using, see your System Coordinator. For more information about software versions, contact your sales representative.

All of the features available from an ATA are accessed by pressing Link * on your telephone and entering a feature or access code. The feature list on this card shows Link * and the feature code. Where applicable, steps have been included to guide you through each feature. If your telephone does not have a Link button, you must use the Hook Switch (located under the handset). The Hook Switch must be pressed for approximately one half of one second.

For Modular DR3, to make an external call, you must access an external line. To access an external line, lift the handset and enter the external access code. For information about External Access Codes, see your System Coordinator. For Centrex, to make an external call, you simply lift the handset. The system will select the appropriate line.

For Modular DR3 and Centrex, if your telephone does not have a * or # button, you must use dialpad numbers.

To indicate a * enter the number 1

To indicate a # enter the number 3

If you have questions about feature operation and accessing, or feature codes, see your System Coordinator.

Modular DR3 and Centrex Feature List

Alternate Line	Link <u>*</u> <u>2</u>	Allows you to switch between your two intercom lines. When a line is in use, you will hear an error tone informing you that the line is already in use.
Call Forward	Link <u>*</u> <u>4</u> Cancel Link <u>#</u> <u>4</u>	Directs your calls to another telephone connected to your Norstar System. For Modular DR3 Call Forward cannot be used with a telephone that is not connected to Norstar. For Centrex, Call Forward can be used with an external telephone.
Call Park	Link <u>*</u> <u>7</u> <u>4</u>	Parks the call on hold and allows it to be retrieved from any other telephone within the system. Note: ATA users can only park calls on X09.
		Call Park Retrieve A parked call can be retrieved from any Norstar telephone by entering the parked call ID (X01 to X09) on an intercom line.
Call Pick-up (Directed)	Link <u>*</u> <u>7</u> <u>6</u> <plus the ringing number>	Allows you to answer a ringing telephone within your Norstar or Centrex system.
Call Pick-up (Group)	Link <u>*</u> <u>7</u> <u>5</u>	Allows you to answer any ringing telephone within your Norstar or Centrex pick-up group.
Call Queuing (Modular DR3)	Link <u>*</u> <u>8</u> <u>0</u> <u>1</u>	Allows you to answer external calls to your telephone, while you are on a call, in the order that they are received.
Call Waiting (Centrex)	Link <u>*</u> <u>8</u> <u>0</u> <u>1</u>	Allows you to answer the next highest priority waiting call.
Camp-on	Link <u>*</u> <u>8</u> <u>2</u> <plus the extension number>	Allows you to reroute an external call, or a call from a Centrex system telephone, to another Norstar system telephone.

Conference Call Link * 3

Allows you to establish a three-way conference between yourself, one external call and one intercom call, or two intercom calls. Line pool access allows you to establish a conference between yourself and two external calls. To establish a conference call:

1. Make or answer the first call.
2. Enter Link 2 This automatically places the first call on hold.
3. Make or answer the second call.
4. Enter Link * 3 to complete the conference.

Note: If the second call is busy, replace the handset and enter Link 2 to return to the first call.

Conference Hold

Allows you to put the two conferenced parties on hold. The held callers are still conferenced. To put the conference on hold:

1. Enter Link 2 to put the two conferenced parties on hold.
2. Enter Link 2 to restore the three-way call.

Conference Consultation

Allows you to put one party on hold and consult with the other party. To consult:

1. Enter Link # 3 to alternate between calls.
2. Enter Link * 3 to restore the three-way call.

Disconnecting One Party

Allows you to disconnect one party in a three-way conference call. To disconnect one call:

1. Enter Link # 3 to put one caller on hold. You are connected with the other call.
2. Replace the handset.
3. Lift the handset and enter Link 2 You are connected with the caller on hold.

Hold Call (Exclusive) Link * 7 9

Allows you to place an active call on hold and prevents it from being picked up from other telephones. When Tones are On, a held call reminder tone is heard.

Hold Call (Public) Link 2

Allows you to place an active call on hold and allows it to be picked up from other telephones. When Tones are On, a held call reminder tone is heard.

Retrieve a Call on Hold

1. Enter Link 2

Hotline Allows you to call a programmed internal or external telephone number automatically. To use the Hotline feature lift the handset of the designated hotline telephone.

Last Number Redial * 5

Automatically dials the last telephone number you dialed.

Line Pool Selection

A line pool allows several telephones to access a group of exchange lines. To access line pool selection enter the line pool code, or enter into the intercom dial tone:

Link * 6 4 <plus the line pool code>

Page (General)

Link * 6 0 <plus code 1-3> <plus zone code 0-6>

Allows you to make an announcement to all Norstar telephones programmed to receive a page, as well as any other connected paging equipment. You must enter a paging zone. For a list of page zones, see your System Coordinator.

Page (Intercom)

Link * 6 1 <plus zone code>

Page (External)

Link * 6 2

Page (Intercom/External)

Link * 6 3 <plus zone code>

Priority Call

Link * 6 9

Allows you to interrupt a call in progress, or make a voice call to a Norstar telephone on Voice Call Deny or Do Not Disturb.

Note: Priority Call must be enabled in Norstar Administration.

Privacy Control

Link * 8 3

Prevents another telephone that shares your line from joining your current call, or permits another telephone that shares your line to join in.

Reach Through

Link * 7 1

Generates a Link signal to access features available from other systems or carriers.

Pause

Link * 7 8

Generates a 1.5 second delay in a number being entered (for Tone or Pulse dialing).

Timed Release

Link * 7 2

Generates a longer Link signal. Use this feature when you want to release a call from your line but retain the use of the line for another call.

Restriction Override

Link * 6 8 <plus an override password> <plus the restricted number>

Allows you to override restrictions imposed on your telephone.

Ring Again Link * 2 Cancel Link # 2
Allows you to queue a call to another Norstar or Centrex telephone that is busy or is not answered, or to a busy line in the Line Pool. You can only use ring again on calls placed on an intercom line. When the telephone is available, you are alerted with one short ring from your telephone.

Reply To a Ring Again Signal

To connect with a ring again request when you are on a call (or your telephone is off-hook):

1. Enter Link * 2
This automatically places your call on hold.
2. To return to the caller on hold, enter Link * 2

To connect with a ring again request when your telephone is on-hook:

1. Lift the handset. The ring again number is automatically redialed.

Note: If you do not respond to a Ring Again signal within 30 seconds, Ring Again is cancelled.

Saved Number Redial Link * 6 7
Allows you to save a number while you are on a call or while the call is ringing.

Send Message Link * 1 Cancel Link # 1
Allows you to leave a message on a co-worker's telephone.

Service Mode In Service Mode the ATA telephone can be assigned as the control telephone for one or more lines, or as the Night Zero telephone. Service Mode is assigned during Norstar System Administration.

StarTalk Enter the StarTalk DN,
or
Link * 9 8 1 <and follow the voice prompts>
Allows you to access your mailbox.

Link * 9 8 0 <and follow the voice prompts>
Allows you to leave a message.
Note: You cannot use a single line telephone attached to an ATA for StarTalk configuration tasks. For more information about accessing StarTalk features, see your StarTalk User Card.

System Speed Dial Link * 0 <plus the speed dial code>
Allows you to use a Speed Dial code to quickly dial preprogrammed telephone numbers. System Speed Dial codes are established by the System Coordinator.
Note: You cannot program personal speed dial numbers from your ATA telephone.

Tones Link * 8 0 9 Cancel Link # 8 0 9
Call progress tones are audio signals heard through the handset or telephone ringer. Tones signal you about the progress of certain features.
Note: Tones must be OFF when an ATA is used with a data communications device such as a FAX or modem.

Transfer Allows you to transfer a call. To transfer a call you must have an available intercom line. To transfer a call:

1. Enter Link * 7 0
2. Enter the transfer destination number.
3. Replace the handset.

To Transfer using Conference

1. Enter Link * 2
2. Make the second call.
3. Enter Link * 3
4. Replace the handset.

To Transfer an external call to a co-worker with a line appearance using Hold:

1. Put the caller on Hold and select your alternate line.
2. Call your co-worker. Tell your co-worker the flashing line appearance is a call for them.
3. Replace the handset.

Trunk Answer from any Telephone Link * 8 0 0
Allows you to pick-up a ringing external call on a line that has been placed into any Service Mode.

Voice Call Link * 6 6 <plus the intercom number>
Allows you to make a voice announcement or begin a conversation through the speaker of a Norstar telephone without making the other telephone ring.

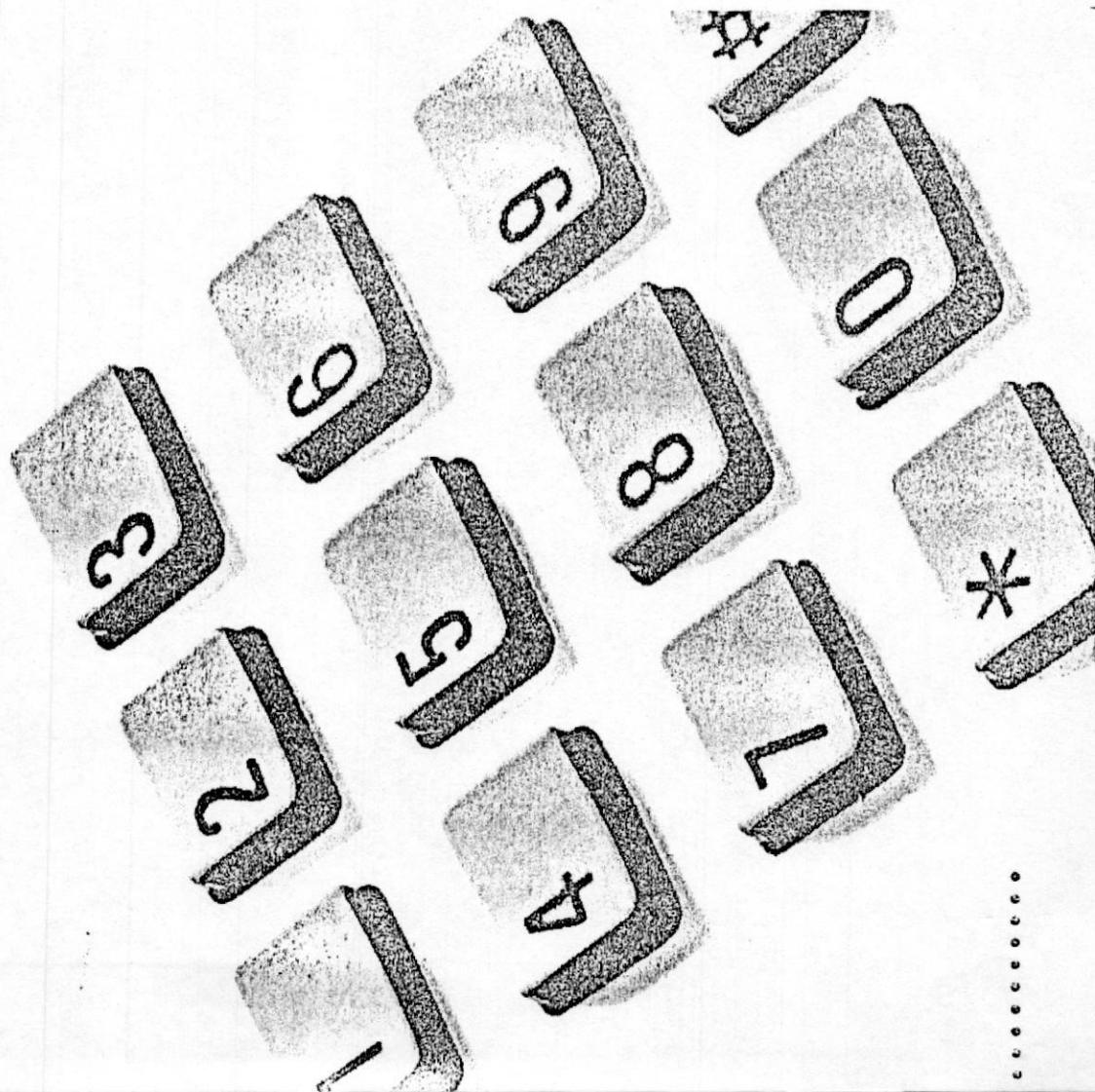
norstar

.....

ATA User Card

For use with:

Modular DR3, and Centrex



.....

About ATA

The Analog Terminal Adapter (ATA) connects a digital Meridian Norstar telephone port to a standard analog voice device, such as a single-line telephone, or a data communication device, such as a modem or facsimile machine. The ATA provides an on or off premise service.

This side of the card describes ATA features used with Norstar Modular DR3 and Centrex software. To use ATA features with 3X8, Compact DR1 and DR2, and Modular DR2 software, or for Troubleshooting, turn this card over and read the other side. To determine which version of Norstar software your system is using, see your System Coordinator. For more information about software versions, contact your sales representative.

All of the features available from an ATA are accessed by pressing Link • on your telephone and entering a feature or access code. The feature list on this card shows Link • and the feature code. Where applicable, steps have been included to guide you through each feature. If your telephone does not have a Link button, you must use the Hook Switch (located under the handset). The Hook Switch must be pressed for approximately one half of one second.

For Modular DR3, to make an external call, you must access an external line. To access an external line, lift the handset and enter the external access code. For information about External Access Codes, see your System Coordinator. For Centrex, to make an external call, you simply lift the handset. The system will select the appropriate line.

For Modular DR3 and Centrex, if your telephone does not have a • or # button, you must use dialpad numbers.

To indicate a • enter the number 1

To indicate a # enter the number 3

If you have questions about feature operation and accessing, or feature codes, see your System Coordinator.

Modular DR3 and Centrex Feature List

Alternate Line	Link <u>•</u> <u>2</u>	Allows you to switch between your two intercom lines. When a line is in use, you will hear an error tone informing you that the line is already in use.
Call Forward	Link <u>•</u> <u>4</u> Cancel Link <u>•</u> <u>4</u>	Directs your calls to another telephone connected to your Norstar System. For Modular DR3 Call Forward cannot be used with a telephone that is not connected to Norstar. For Centrex, Call Forward can be used with an external telephone.
Call Park	Link <u>•</u> <u>7</u> <u>4</u>	Parks the call on hold and allows it to be retrieved from any other telephone within the system. Note: ATA users can only park calls on X09.
Call Park Retrieve		
A parked call can be retrieved from any Norstar telephone by entering the parked call ID: X09 on an intercom line.		
Call Pick-up (Directed)	Link <u>•</u> <u>7</u> <u>6</u> <plus the ringing number>	Allows you to answer a ringing telephone within your Norstar or Centrex system.
Call Pick-up (Group)	Link <u>•</u> <u>7</u> <u>5</u>	Allows you to answer any ringing telephone within your Norstar or Centrex pick-up group.
Call Queuing (Modular DR3)	Link <u>•</u> <u>8</u> <u>0</u> <u>1</u>	Allows you to answer external calls to your telephone, while you are on a call, in the order that they are received.
Call Waiting (Centrex)	Link <u>•</u> <u>8</u> <u>0</u> <u>1</u>	Allows you to answer the next highest priority waiting call.
Camp-on	Link <u>•</u> <u>8</u> <u>2</u> <plus the extension number>	Allows you to reroute an external call, or a call from a Centrex system telephone, to another Norstar system telephone.

Conference Call Link * 3

Allows you to establish a three-way conference between yourself, one external call and one intercom call, or two intercom calls. Line pool access allows you to establish a conference between yourself and two external calls. To establish a conference call:

1. Make or answer the first call.
2. Enter Link 2 This automatically places the first call on hold.
3. Make or answer the second call.
4. Enter Link * 3 to complete the conference.

Note: If the second call is busy, replace the handset and enter Link 2 to return to the first call.

Conference Hold

Allows you to put the two conferenced parties on hold. The held callers are still conferenced. To put the conference on hold:

1. Enter Link 2 to put the two conferenced parties on hold.
2. Enter Link 2 to restore the three-way call.

Conference Consultation

Allows you to put one party on hold and consult with the other party. To consult:

1. Enter Link # 3 to alternate between calls.
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Allows you to disconnect one party in a three-way conference call. To disconnect one call:

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Allows you to place an active call on hold and prevents it from being picked up from other telephones. When Tones are On, a held call reminder tone is heard.

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Allows you to place an active call on hold and allows it to be picked up from other telephones. When Tones are On, a held call reminder tone is heard.

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Automatically dials the last telephone number you dialed.

Line Pool Selection

A line pool allows several telephones to access a group of exchange lines. To access line pool selection enter the line pool code, or enter into the intercom dial tone:

Link * 6 4 <plus the line pool code>

Page (General)

Link * 6 0 <plus code 1-3> <plus zone code 0-6>

Allows you to make an announcement to all Norstar telephones programmed to receive a page, as well as any other connected paging equipment. You must enter a paging zone. For a list of page zones, see your System Coordinator.

Page (Intercom)

Link * 6 1 <plus zone code>

Page (External)

Link * 6 2

Page (Intercom/External)

Link * 6 3 <plus zone code>

Priority Call

Link * 6 9

Allows you to interrupt a call in progress, or make a voice call to a Norstar telephone on Voice Call Deny or Do Not Disturb.

Note: Priority Call must be enabled in Norstar Administration.

Privacy Control

Link * 8 3

Prevents another telephone that shares your line from joining your current call, or permits another telephone that shares your line to join in.

Reach Through

Link * 7 1

Generates a Link signal to access features available from other systems or carriers.

Pause

Link * 7 8

Generates a 1.5 second delay in a number being entered (for Tone or Pulse dialing).

Timed Release

Link * 7 2

Generates a longer Link signal. Use this feature when you want to release a call from your line but retain the use of the line for another call.

Restriction Override

Link * 6 8 <plus an override password> <plus the restricted number>

Allows you to override restrictions imposed on your telephone.

Ring Again Link * 2 Cancel Link # 2
Allows you to queue a call to another Norstar or Centrex telephone that is busy or is not answered, or to a busy line in the Line Pool. You can only use ring again on calls placed on an intercom line. When the telephone is available, you are alerted with one short ring from your telephone.

Reply To a Ring Again Signal

To connect with a ring again request when you are on a call (or your telephone is off-hook):

1. Enter Link * 2
This automatically places your call on hold.
2. To return to the caller on hold, enter Link * 2

To connect with a ring again request when your telephone is on-hook:

1. Lift the handset. The ring again number is automatically redialed.

Note: If you do not respond to a Ring Again signal within 30 seconds, Ring Again is cancelled.

Saved Number Redial Link * 6 7
Allows you to save a number while you are on a call or while the call is ringing.

Send Message Link * 1 Cancel Link # 1
Allows you to leave a message on a co-worker's telephone.

Service Mode In Service Mode the ATA telephone can be assigned as the control telephone for one or more lines, or as the Night Zero telephone. Service Mode is assigned during Norstar System Administration.

StarTalk Enter the StarTalk DN,
or
Link * 9 8 1 <and follow the voice prompts>
Allows you to access your mailbox.

Link * 9 8 0 <and follow the voice prompts>
Allows you to leave a message.
Note: You cannot use a single line telephone attached to an ATA for StarTalk configuration tasks. For more information about accessing StarTalk features, see your StarTalk User Card.

System Speed Dial Link * 0 <plus the speed dial code>
Allows you to use a Speed Dial code to quickly dial preprogrammed telephone numbers. System Speed Dial codes are established by the System Coordinator.
Note: You cannot program personal speed dial numbers from your ATA telephone.

Tones Link * 8 0 9 Cancel Link # 8 0 9
Call progress tones are audio signals heard through the handset or telephone ringer. Tones signal you about the progress of certain features.
Note: Tones must be OFF when an ATA is used with a data communications device such as a FAX or modem.

Transfer Allows you to transfer a call. To transfer a call you must have an available intercom line. To transfer a call:

1. Enter Link * 7 0
2. Enter the transfer destination number.
3. Replace the handset.

To Transfer using Conference

1. Enter Link * 2
2. Make the second call.
3. Enter Link * 3
4. Replace the handset.

To Transfer an external call to a co-worker with a line appearance using Hold:

1. Put the caller on Hold and select your alternate line.
2. Call your co-worker. Tell your co-worker the flashing line appearance is a call for them.
3. Replace the handset.

Trunk Answer from any Telephone Link * 8 0 0
Allows you to pick-up a ringing external call on a line that has been placed into any Service Mode.

Voice Call Link * 6 6 <plus the intercom number>
Allows you to make a voice announcement or begin a conversation through the speaker of a Norstar telephone without making the other telephone ring.

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In Norstar, a trunk is a physical connection between the Norstar system and the outside world. A line is a communication path between a station and the outside world. This communication path represents a many-to-one relationship (concentration) between trunks and lines (see DID section).

TARGET LINES - DR4 NEW TERMINOLOGY

In Norstar, a target line (communication path) is a flexible path through which an external user can directly connect (target) to a specific Norstar station. Calls to different Norstar stations can be routed through the same trunk or calls to a specific Norstar station can come in on different trunks. From the Norstar users perspective, a target line is no different from any other line except that it is incoming only.

TRUNK/LINE MAPPING CONCEPT

Logical lines (Target lines) are not physical connections but are provisioned through Norstar software. With Norstar Modular DR3 and earlier, physical trunk connections were made, then programmed (Appendix 1 A. Configuration, 2. Line Data). The programmed line could then be assigned to Norstar stations (A. Configuration, 1. Line Access).

DR4 introduces a Logical line concept (Target line) whereby physical trunks are programmed as line numbers 001-080 and the Target lines are programmed as line numbers 081-184 (Appendix 2, A. Configuration, 1. Trk/Line data, Line:).

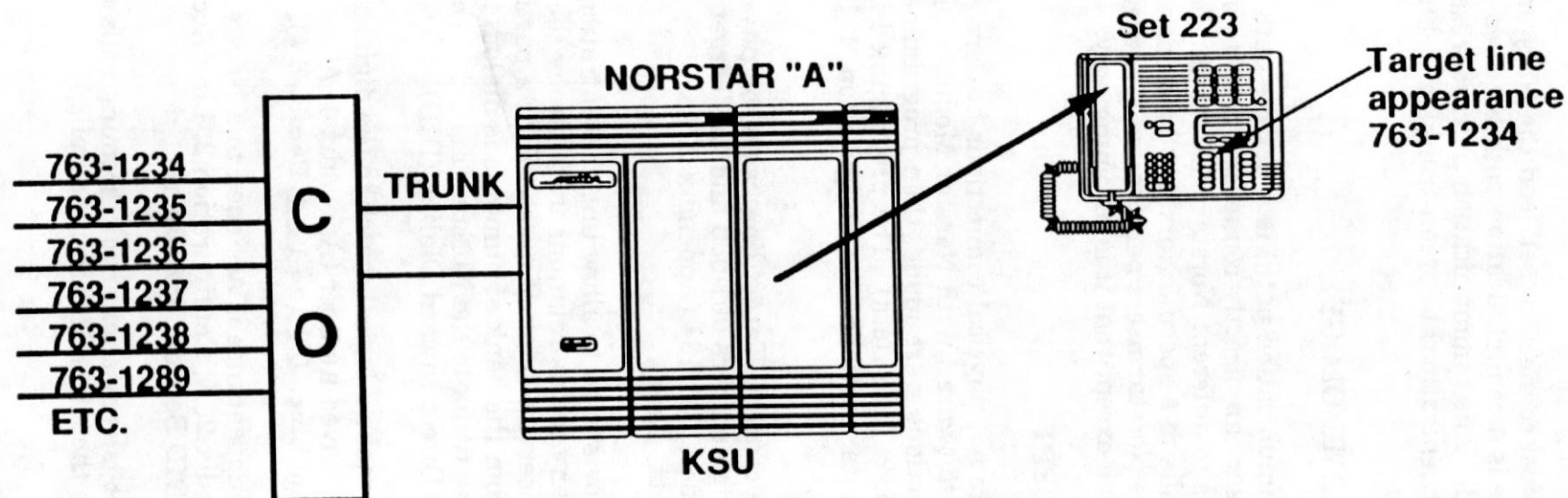
The Logical line concept is provisioned to allow line concentration. Line concentration represents a many to one relationship whereby the Central Office (C.O.) would reserve a bank of numbers for a particular customer. When a number from the bank of numbers is dialed, the C.O. sends the digits dialed on a free trunk to the Norstar (Fig 2.0). This type of line concentration is called Direct Inward Dialing (DID).

The Norstar has the ability to make a logical match to the digits that were dialed by checking the received number (Appendix 1, A. Configuration, 1. Trk/Line Data, Line: 081 to 184, Received #).

The Target line (Logical line) appearance is assigned to a Norstar station in Line Access (Appendix 2, A. Configuration, 2. Line Access) in the normal fashion. (See the DID Section for details.)

The line concentration concept is very similar for incoming calls to the Norstar on E&M tie lines. (See the E&M Section for details.)

TRK/LINE MAPPING CONCEPT



REQUIRED NORSTAR PROGRAMMING FOR THE PHYSICAL TRUNK

A. CONFIGURATION
1. TRK/LINE DATA
LINE: 001
TRUNK DATA
ANS MODE-AUTO

FOR THE TARGET LINE

A. CONFIGURATION
1. TRK/LINE DATA
LINE: 081 (LOGICAL LINE)
REC'D # 763-1234
2. LINE ACCESS
SET: 223
LINE ASSIGNMENT - LINE 081

Call sequence -

1. Caller dials 763-1234
2. C.O. selects free trunk and sends the digits to the Norstar
3. Norstar software makes a logical match (received #).
4. Norstar alerts any sets with the target line assigned.

FIG 2

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The Small Business Solutions Handbook is published and updated by Northern Telecom's Canadian Business Marketing Group. This handbook is intended as a reference guide for Sales Representatives, Telemarketers and others who support Northern Telecom's Small Business products portfolio. Communications regarding this handbook should be directed to:

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Canadian Small Business Marketing
3705 - 35th Street N.E.
Calgary, Alberta
Canada T1Y 6C2
Attention: Editor
J. Kivell

If you require additional copies, please order through your local Northern Telecom Sales Representative. Additional copies are available at a cost of \$35.00.

INTRODUCTION

Introduction 1

The Norstar Handbook has been created to provide sales representatives quick access to the many features and benefits available with the Norstar Digital Key System. This Handbook is a one-stop reference guide for the Norstar System.

Norstar Technological Advantages

Digital Transmission

- Norstar takes advantage of fully digital technology today, while most smaller key systems are still using analog or some combination of analog and digital transmission.
- Digital transmission provides:
 - high-quality, reliable voice transmission, superior to anything previously offered, and
 - simultaneous voice and data transmission.

Call Handling

- Each set monitors a messaging channel so users will never receive a busy signal from an internal office call.
- Each set can simultaneously make an internal and an external call.
- All sets in the system can go off hook and receive dial-tone simultaneously.
- All sets in the system can make intercom calls simultaneously.

2B+D Signalling

- A voice conversation, data session, and control signalling can be transmitted over a single pair of wires.
- Allows devices such as StarTalk, Data Communications Interface (DCI), Personal Computer Interface (PCI) to monitor the message channel.

Intelligent Sets

- Norstar sets have come to be referred to as "Intelligent Sets", because of their ability to quickly process information due to a built in processor in every set.
- Digital technology creates a superior level of integration or "intelligence" between the Norstar system and the sets.

Intelligent Advantages

Auto Set Relocation

Norstar sets can be easily moved to a new location within the Norstar system without the loss of programmed information.

Set Replacement

If an existing set is replaced with a new one of the same type, it will acquire the old set's identity and programming.

Response to System Enhancements

As a new Key Service Unit (KSU) is added or software upgrades occur, existing sets will offer full functionality at the upgraded level.

Three Levels of Customization

Level 1: Configuration Programming is performed by the installer who changes settings for the entire Norstar system, as well as settings for individual telephones and external lines.

Level 2: Administration Programming is performed by a designated service advisor/system coordinator after configuration. Companies have the ability to modify system-wide settings, as well as customize some settings for individual sets and lines.

Level 3: User Programming enables users to personalize their sets by programming the features they want to use such as personal speed dial numbers, autodial numbers, ring type, volume control, and language.

Selecting the Norstar System that Best Meets Your Needs

To select the best Norstar system, current and future needs should be addressed. Current needs include such things as: system simplicity, reliability, and flexibility; need for central answering capability; set access to remote locations; tracking of calling activity; and affordability. Future needs encompass such items as: the ability to expand the system at a minimal cost; the ability to take advantage of the latest features as they become available; and the flexibility for expansion should a business grow faster than anticipated.

Knowing that Northern Telecom's design of Norstar reflects extensive and ongoing customer research continues to provide businesses with the assurance that their needs will be responded to now and in the future.

HARDWARE

Hardware

2

Norstar Key Service Unit (KSU)

The Norstar Key Service Unit is the heart of the Norstar digital key system and is available in three models: 3x8, Compact and Modular. Each KSU includes a power supply, interfaces to connect outside lines and stations, programmable memory and separate feature cartridges for Compact and Modular only.

KSUs are energy efficient, requiring low power consumption, and use standard grounded wall sockets. Analog devices are supported by the Analog Terminal Adapter (ATA). Finally, installation is simple with a polarity insensitive single-pair of twisted wire.

3X8 KSU



Length: 33 cm (13.0 in)
Width: 24 cm (9.5 in)
Depth: 7.5 cm (3.0 in)
Weight: 2 kg (4.4 lb)
Color: Dolphin Grey

Description

- The 3X8 is a self-contained unit that functions with built-in ~~DR1~~ software and an external power supply.
- This system can be configured with up to 3 lines and 8 stations (3X8).
- The 3X8 offers advanced Norstar functionality with many cost-saving set and system features not available with competitive systems.
- Custom programming enables a business to configure the system to best suit its particular needs.
- The 3X8 is easy to install, and comes in a convenient size (see dimensions above). Therefore the system can fit virtually anywhere without taking up too much space.

3X8 Customer Profile (Small Business)

A Norstar 3X8 customer is a business that wants a full- featured key system because it offers: on-site equipment that can be customized, features that manage a high level of internal calling patterns (e.g., paging, intercom, call handling), and the opportunity to control and maintain the communications system. The business requires up to a maximum of three lines and eight stations.

In addition, the business wants to minimize the time and cost associated with training its employees how to operate the system. Reliability is also essential, because downtime corresponds to potential loss of revenue. Finally, the business wants the ability to take advantage of future growth, by being able to take advantage of the investment already made in its Norstar telephone sets in larger Norstar system configurations.

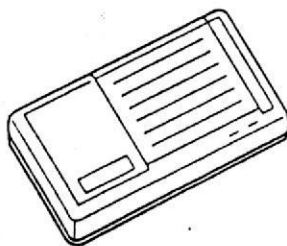
3X8 Customer Profile (Home-based Business)

The 3X8 home-based business customers have needs similar to the small business profile, but they will likely have the need for more specialized applications such as personal computer connectivity and third party add-ons, for example, door phone, entry locks, or paging systems.

Compact 6X16 KSU**Description**

Length: 516 cm (21.9 in)
Width: 356 cm (14 in)
Depth: 87 mm (3.4 in)
Weight: 5150 g (11.6 lb)
Color: Dolphin Grey

- The Compact (6X16) KSU is a self-contained unit that is not expandable to a Modular KSU. It has one emergency transfer teledapt port and an internal power supply.
- The system can be configured with up to six lines and 16 stations.
- The cartridge includes all administration and call processing features required to operate a Norstar Compact system. The Compact software platform is a DR5 feature cartridge. (See "Software - Chapter 3" for details.)

Compact CII**Description**

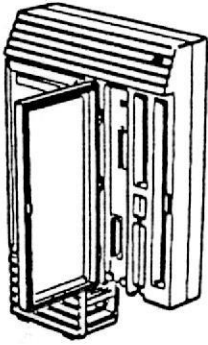
- The Call Identification Interface (CII) detects and converts incoming CMS calling information to a message on the Norstar Messaging channel. When it is used with Compact DR5 software, it provides call display information and associated features to designated telephones in the system
- A Call Identification Interface (CII) has ATA plastics with distinctive labelling identifying a six-line Compact unit (C6). It can only be used on a Compact KSU.
- It requires only one dedicated station port on an existing Norstar Compact KSU. (Configuration now 6X15.)

Compact KSU Customer Profile

A Norstar Compact customer is someone who operates a small, but growing business, a medium-sized organization, or a branch office of a larger company. The business wants a key system because it offers: on-site equipment that can be customized; features that manage a high level of internal calling patterns (e.g., paging, intercom, call handling); and the opportunity to control and maintain the communications system. The business needs up to a maximum of six lines and 16 stations, and yet requires a fully-featured system.

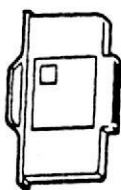
Finally, the business is aware of future opportunity, and wants to take advantage of the latest features and services as they become available, without significant capital investments.

A Compact CMS PLUS customer is a business that has all of the above requirements, but also needs more powerful system features and functionality which could be used to provide enhanced service to its customer base.

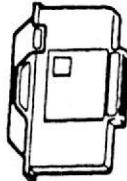
Modular 8X24 KSU**Description**

Length: 516 mm (24.6 in)
Width: 395 mm (15.5 in)
Depth: 171 mm (6.73 in)
Weight: 8163 g (17.95 lb)
Color: Dolphin Grey

- The system is designed on a module- and cartridge-based concept that allows for easy installation, maintenance, expansion, and customization.
- The base KSU supports up to eight lines and 24 stations, but can be expanded with Trunk and Station Modules for additional lines and terminals.
- When fully expanded, the Modular system supports up to 128 ports of any combination of lines and stations. (See next page for configuration combinations.)
- There are two built-in cartridge slots in the base of the Modular KSU. The feature cartridge slot (the smaller of the two) houses the system software. The expansion cartridge slot (for a two- or six-port cartridge) is used to connect Trunk and Station Modules.
- Central Office lines enter, and station ports exit, the KSU through two amphenol connectors.
- The Modular KSU is also equipped with two emergency transfer ports used to connect 500/2500 sets in the event of a power failure.
- There is one emergency transfer port per Trunk Module.

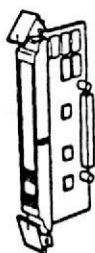
Feature Cartridge**Description**

DR2
RAM
Only

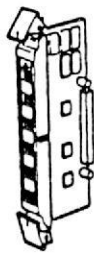


ROM
+
RAM
DR3

- The feature cartridge contains the system software for the Modular KSU's operation, including the call processing, administration, and maintenance features and functions.
- Post DR2 feature cartridges come in two parts for faster, easier and less expensive upgrades.
- The ROM section houses system software and is easily replaced when upgrading, whereas the RAM section stores customer data and remains unchanged.

Additional Hardware**Expansion Cartridge****Description**

Two-Port
Expansion
Cartridge



Six-Port
Expansion
Cartridge

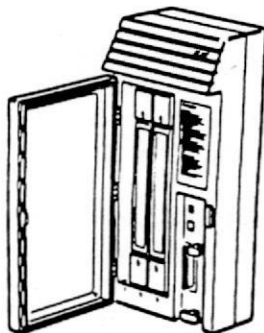
- Two- or six-port expansion cartridges allow the connection of additional Trunk or Station Modules to expand base KSU capacity.

DS-30 Cables**Description**

- DS-30 cables connect modules to the expansion cartridge.
- Modular expansion permits ongoing system customization without replacing core hardware.

Trunk Module (12 x 0)

Description

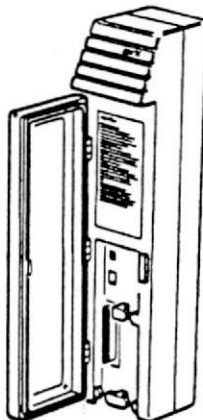


- Each Trunk Module (TM) holds up to three Trunk Cartridges (TC).
- Each Trunk Cartridge expands the base KSU by four Central Office (CO) lines (four ports per cartridge) up to a maximum of 12 CO lines per Trunk Module.

Length: 625 mm (24.6 in)
Width: 198 mm (7.8 in)
Depth: 171 mm (6.73 in)
Weight: 5142 g (11.33 lb)
Color: Dolphin Grey

Station Module (0x16)

Description

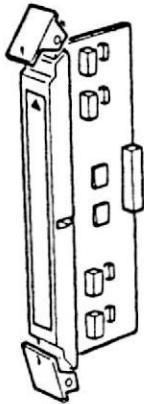


- Each Station Module expands the base system by up to 16 stations which support any Norstar terminal.

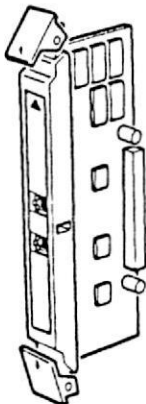
Length: 625 mm (24.6 in)
Width: 98 mm (3.85 in)
Depth: 171 mm (6.73 in)
Weight: 2415 g (5.31 lb)
Color: Dolphin Grey

Trunk Cartridge**Description**

- The Trunk Cartridge, when inserted in a Trunk Module, adds up to four external lines to the Norstar system.
- Up to three Trunk Cartridges can be added to each Trunk Module.

Loop Start Cartridge**Description**

- Provides basic access to a maximum of four Central Office lines beyond the eight in the base KSU.
- All Loop Start Trunk Cartridges have Disconnect Supervision.

1A2 Cartridge**Description**

- The 1A2 provides the interface for 1A2 telephone systems and/or single line sets.
- It provides a visual indication (set coverage) for lines appearing on both Norstar and 1A2 key systems.
- The 1A2 Trunk Cartridge works with Centrex and Centrex + software only

CI Trunk Cartridge

Description

- The Call Identification Trunk Cartridge (CITC) has the same functionality as the Disconnect Supervision Trunk Cartridge but with the capability to detect and translate incoming CMS information for display on Norstar sets.
- A CMS Trunk Cartridge is required if there are more than eight CMS lines in a Modular system or when any CMS lines terminate on a Trunk Module.

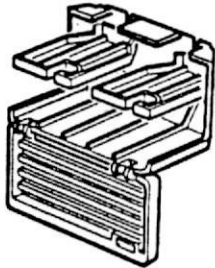
Direct Inward Dialing (DID) Trunk Cartridge

Description

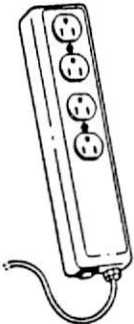
- Routes calls from the public network directly to sets, bypassing an attendant, reducing traffic to the central answering position.
- All DID Trunk Cartridges have Disconnect Supervision.

**E&M/Direct Inward
System Access
(DISA) Trunk
Cartridge****Description**

- Provides E&M Tie line private networking between the Norstar and other systems.
- The cartridge also contains DTMF receivers required for DISA on Loop-Start Trunks.

Cable Troughs**Description**

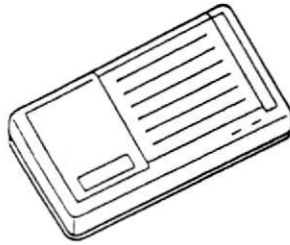
- Attached to the bottom of the KSU, Cable Troughs provide an orderly method of containing and protecting all cabling from the KSU and between the Modules.

Power Bar**Description**

- A power bar is installed in the cable trough so the same AC power source can operate all station and trunk modules.

Backup Power Supply**Description**

- Optional MPS 250 provides backup power during a power failure and protects the system from commercial power supply fluctuations.

Modular CII**Description**

- The Call Identification Interface (CII) detects and converts incoming CMS call information to a message on the Norstar Messaging channel. When it is used in a Norstar Modular DR5, Norstar Centrex+, or Norstar Compact DR5 system, it provides call display information and associated features to designated telephones in the system.
- The CII provides call display-associated features only for lines connected to the Key System Unit. To get this information for lines connected to Modular Trunk Modules, you must use a CI Trunk Cartridge.
- There are two models of the CII. M8 indicates an eight line model designed for use with the Norstar Modular DR5, Norstar Centrex+ or the Compact DR5 Key System Units. C6 indicates a six line model designed for use with the Norstar Compact DR5 only.

Modular KSU Customer Profile

A Norstar Modular customer is a business that wants a key system because it offers on-site equipment that can be customized, features that manage a high level of internal calling patterns (e.g., paging, intercom, call handling), and the opportunity to control and maintain the communications system.

The business wants a system with proven reliability and one that will be easy for its employees to use. It does not want to spend a lot of time or money training its people how to use their communications system.

The communications system has the capability to evolve to 120 stations to match business growth. Finally, the business is aware of future opportunity, and wants to take advantage of the latest features and services as they become available, without significant capital investments.

SOFTWARE



Software

3

The next decision, after selecting the hardware, is choosing software which best meets the business' needs. A step concept applies to Norstar software development; as new versions are released they include all features from the previous "steps" or versions, plus the new upgrades. Certain base features provide the foundation for all future software development.

Sales Advantages with Norstar Software

Today, most key systems are feature rich. To get the competitive edge, the customer must understand how the Norstar set simplifies access to the many system features. Feature access is easy, because Norstar offers the following benefits: LCD Displays which visually prompt and confirm feature usage; easily remembered, simple access codes; memory buttons that save frequently-used feature access codes; and single-button access programming to activate saved features.

When any new software version is released with new features and feature enhancements, it still includes all of the features from earlier versions. The format of this chapter reflects that cumulative development. As each new release is presented, it will list only the newest features and feature enhancements. It will not list the older features, although that is to be assumed. Enhancements are explained immediately after each listing, while one complete alphabetical features-benefits list can be found at the end of the chapter.

DR1 or Base Features

Hardware	
3x8 KSU	✓
Compact KSU	✓
Modular KSU	
Terminals	
M7324	
M7310	✓
M7208	✓
M7100	
Software	
DR1	✓
Compact DR2	
Compact DR5	
Modular DR2	
DR3	
DR4	
DR5	
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	
StarTalk 1.6	
StarTalk 2.0	
Peripherals	
ATA	✓
BLF	✓
CAP	
DCI	✓
SMDR	✓
SAPS	✓
PCI	✓

✓ denotes compatible with

Base Features

Access Signaling
 • End-to-end – External
 • Link/Flash (Recall)
 • Pause
 Accidental Disconnect
 Protection
 Autodial Keys
 Automatic Line Selection
 Automatic Set Selection
 Auxiliary Ringer Interface
 Background Music
 Button (Key) Inquiry
 Call Duration Timer
 Call Forward All Calls
 Call Forward Override
 Call Identification/Call Status
 Display – Set Names
 Call Pickup Group
 Conference (Three-party Incl.
 Consultation)
 Delayed Ring Transfer
 Dial Intercom
 Dial 0 Station
 Dialing Mode – Standard
 Discriminating Ringing
 Do Not Disturb
 Emergency Transfer/Power Fail
 Cut Through
 External Line Access
 Feature Access
 Flexible Call Restrictions and
 Overrides
 Handsfree Answerback

Base Features Cont'd

Hold

- Automatic
- /U-hold/Mutual Hold
- Exclusive
- Held Line Reminder

Language Choice

Last Number Redial

Line Pool(s)

Listen On Hold

Loud Ringer Interface

Manual Line Selection

Messages (Send, Waiting, Reply)

Music/Tone/Silence On Hold

Night Service

On Hook Dialing

Paging - External and Internal

Pre-Selection/Call Screening

Prime Line

Prime Set

Privacy

Private Lines

Pulse/Tone Dialing

Restriction Override Password

Ring Again On Busy

Ringing Line Preferences

Speed Dial - Personal and System

Time/Date Display

Transfer Using Conference

Transfer Using Hold

Voice Call

Compact DR2

Hardware	
3x8 KSU	
Compact KSU	√
Modular KSU	
Terminals	
M7324	√
M7310	√
M7208	√
M7100	
Software	
DR1	
Compact DR2	√
Compact DR5	
Modular DR2	
DR3	
DR4	
DR5	
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	√
StarTalk 1.6	√
StarTalk 2.0	√
Peripherals	
ATA	√
BLF	√
*CAP	
DCI	√
SMDR	√
SAPS	√
PCI	√

√ denotes compatible with

* CAP provides BLF indication only on Compact DR2 software

New Compact DR2 Features

Access Signalling – Internal End-to-end
 Display – Line Names
 Call Park (with Callback)
 Call Pickup – Trunk Answer From Any Station
 Callback
 Custom Business Products Compatibility
 Numbering Plan – Flexible
 Password Protection
 Priority Call
 Ring Again – On Busy Line Pool
 Saved Number Redial
 Transfer (with Callback)
 • Immediate
 • With Announcement

Compact DR2 Enhancements

Access Signaling – Link/Flash (Recall)
 Automatic Set Relocation
 Delayed Ring Transfer
 Dial 0 Station
 Flexible Call Restrictions and Overrides
 Hold – Held Line Reminder
 Line Pool(s)
 Night Service
 Paging – Internal (Multiple Zones)
 Prime Set(s)
 Restriction Override
 Password(s)
 Speed Dial – Personal and System

Explanation of Compact DR2 Enhancements

Access Signaling - Link/Flash (Recall)

- Programmable signal length.

Automatic Set Relocation

- Programmable on/off feature.

Delayed Ring Transfer

- Transfer occurs after programmable number of rings.

Dial 0 Station

- Flexible day and night assignment of Dial 0 station.

Flexible Call Restrictions and Overrides

- Call Restriction tables increased from 10 to 30.

Hold - Held Line Reminder

- Programmable delay between alerting tones.

Line Pool(s)

- Up to three line pools with programmable access codes.

Night Service

- Flexible service with assignable night set.

Paging - Internal (Multiple Zones)

- Sets assignable to one of three zones for internal paging.

Prime Set(s)

- Multiple prime sets.

Restriction Override Password(s)

- Increased from one three-digit code to 25 four-digit codes.

Speed Dial - Personal

- All sets allowed Speed Dial.

Speed Dial - System

- Speed dial list increased from 30 to 70 numbers.

Compact DR5

Hardware	
3x8 KSU	
Compact KSU	✓
Modular KSU	
Terminals	
M7324	✓
M7310	✓
M7208	✓
M7100	✓
Software	
DR1	
Compact DR2	
Compact DR5	✓
Modular DR2	
DR3	
DR4	
DR5	
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	
StarTalk 1.6	
StarTalk 2.0	
StarTalk 2.0.1A	✓
Peripherals	
ATA	✓
BLF	✓
CAP	✓
DCI	✓
SMDR	✓
SAPS	✓
PCI	✓

New Compact DR5 Features

The following are new Norstar Compact Features that are dependent on Call Management Services supplied on your telephone line.

Calling Number Display

Calling Name Display

Message Waiting Indicator

Call Log - Including the following:

- Auto Bump On/Off
- Caller's Number
- Caller's Name
- Logging Options
- Long Distance Indicator
- Optional Password Protection
- Time Stamp
- Repeat Call Counter
- Automatic Redial

Call Information Session

Logit Feature (Manual Call Logging)

Long Distance Indication

**New Compact DR5 Features
Cont'd****Call Management Services (CMS)**

In addition to core support for Call Display features and Central Office Message Waiting indication, the following CMS features also interact with Norstar to enhance Norstar's operation.

Please Note: Feature names and availability will vary from region to region.

- Automatic Call back (AC)
- Automatic Recall (AR)
- Calling Number Delivery Blocking
- Calling Name Delivery
- Customer Originated Trace
- Distinctive Ringing/Call Waiting
- Long Distance Indication
- Message Waiting Indication
- Selective Call Acceptance
- Selective Call Forwarding
- Selective Call Rejection

**Compact DR5 Feature
Enhancements**

- Paging Capability per set
- Transfer with Announce

**Explanation of Compact DR5
Enhancements****Paging Capability per Set**

- Individual sets can be denied the ability to perform paging.

Transfer with Announce

- The user announces a call to the designated party before transferring it by simply staying on the line. To do an immediate transfer, press the OK softkey or the Release key.

Compact DR2 to DR5 Feature Comparison

FEATURE NAME	COMPACT DR2	COMPACT DR5
Answer Groups	no	yes
Autodial Buttons - number of digits	16	24
Autodial Buttons - with stored facility access eg. Line + Number	no	yes
Autodial Buttons - with reach through access codes eg., Link + Number	no	yes
Button Inquiry - including Speed Dial Entries, Last Number Redial, Saved Number	no	yes
Call Forward Busy	no	yes
Call Forward No Answer	no	yes
Call Park Prefix	1	0-9, none
Call Pickup - Directed	no	yes
Call queuing	no	yes
Camp On	no	yes
Central Answering Position (CAP Module)- features and Autodial only - NO line appearances	no	yes (1 CAP)
Class Of Service(COS) features as shown below	no	yes
COS - dialling abilities	no	yes
COS - password	no	yes - 19
Dial "0" station - direct dial digit	0	0-9
Disconnect Supervision	no	no
Flexible Call Restrictions - Filters NOTE - restrictions on a per line basis per set	no - used tables	yes
Flexible Call Restrictions Overrides - including system speed dial	no	yes
Group Listening	no	yes
Handsfree - Automatic Handsfree	no	yes
Host Delay	no	yes
Hot Line	no	yes
Last Number Redial - selects facility used on original call	no	yes
Last Number Redial - number of digits	16	24
Line Button Relocation	no	yes
Norstar Manager support	Rls. 6.4 & above	yes
Night Service - Service Modes	no	yes

Compact DR2 to DR5

Feature Comparison Cont'd

FEATURE NAME	COMPACT DR2	COMPACT DR5
Onhook Dialing: options as shown below		
- dial pad modes	no	yes
- automatic dial	no	yes
- predial	no	yes
Paging - Page Yes/No per set	no	yes
PBX/Centrex Reach Through		
- with feature code compression	no	yes
Programmed release	no	yes
Privacy Control per line	no	yes
Privacy Control - on/off	no	yes
Saved Number Redial - number of digits	16	24
Selective Line Redirection	no	no
Speed Dial - personal - number of digits	16	24
Speed Dial - System - number of digits	16	24
Speed Dial- System - name support	no	yes
Telephone Admin Lock	no	yes
Telephone Support - new sets shown below		
- M7100	no	yes
- RAD (Norstar Manager)	yes	yes
Transfer - unified, immediate and with announcement	old operation	yes-new operation
Unsupervised Conference	no	no

Compact DR5 CMS Specific Features

CMS Interface

- via CII and TC

CMS Features

- Calling Number Display
(dialable DN if available)
- Calling Name Display
- Message Waiting Indication
- Long Distance Indicator
- Call Information Feature
- LOGIT Feature (Manual Logging)

Caller Log

- 160 call memory/system (160 calls)
- Flexible Log Size Assignment
- Flexible Log Ownership (per line per set)
- Automatic Modes (manual mode, unanswered on system, unanswered at set, all calls)
- Repeat Call Counter
- Answered Call ICON and Long Distance Indicator
- Time and Date
- Optional 4 Digit Password
- Number, Name, Linename
- Number Editing and Callback
- Log Management (scrolling, manual deletion)
- Autobumping option

Important Notes! Compact DR2 to DR5

Disconnect Supervision is not provided on Compact at this time. Features which require Disconnect Supervision are not supported on Compact, i.e., Unsupervised Conference and Selective Line Redirection.

Dialing filters on Compact will be reduced from the levels currently in Modular and Centrex which are: maximum 100 dialing filters, maximum of 400 restrictions and exceptions programmed on filters, maximum of 255 dialing filters assigned to lines on phones. Compact maximum 25 dialing filters, maximum of 200 restrictions and exceptions programmed on filters, maximum of 255 dialing filters assigned to lines on phones.

A Compact DR2 to DR5 upgrade requires the installation of a new DR5 software cartridge and reprogramming of the system, but no additional hardware.

Upgrading from Compact DR2 to Compact DR5

To upgrade to CMS PLUS, in addition to a DR5 software cartridge, and programming, a Compact Call Identification Interface (CII) is required.

Compact DR5 is compatible with M7100 terminals.

Modular DR2

Hardware	
3x8 KSU	
Compact KSU	
Modular KSU	√
Terminals	
M7324	√
M7310	√
M7208	√
M7100	
Software	
DR1	
Compact DR2	
Compact DR5	
Modular DR2	√
DR3	
DR4	
DR5	
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	√
StarTalk 1.6	√
StarTalk 2.0	√
Peripherals	
ATA	√
BLF	√
CAP	√
DCI	√
SMDR	√
SAPS	√
PCI	√

New Modular DR2 Features

Access Signalling

- Long Tones
- Run/Stop
- Timed Release

Answer Groups

Call Forward No Answer

Call Pickup Directed

Line Profile

Maintenance Alarms

Ring Again On No Answer

Set Profile

Modular DR3

Hardware	
3x8 KSU	
Compact KSU	
Modular KSU	√
Terminals	
M7324	√
M7310	√
M7208	√
M7100	√
Software	
DR1	
Compact DR2	
Compact DR5	
Modular DR2	
DR3	√
DR4	
DR5	
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	
StarTalk 1.6	√
StarTalk 2.0	√
Peripherals	
ATA	√
BLF	√
CAP	√
DCI	√
SMDR	√
SAPS	√
PCI	√

√ denotes compatible with

New DR3 Features

Access Signalling – Programmed Release
 Call Forward On Busy
 Call Waiting
 Camp On
 Compression of Feature Codes
 Dialing Modes

- Automatic
- Predial

 Disconnect Supervision
 Group Listening
 Handsfree Automatic
 Hot Line
 Line Pool(s) – Busy Status
 Move Lines
 Privacy Control
 Speed Dial Line Selection
 Speed Dial Bypass Restrictions
 Speed Dial Names
 Telephone Administration Lock

DR3 Enhancements

Autodial Keys
 Button Inquiry
 Dial 0 Station
 Flexible Call Restrictions and Overrides
 Flexible Numbering Plan
 Last Number Redial
 Night Service – Service Modes
 On-hook Dialing
 Paging – External
 Saved Number Redial
 Speed Dial – Personal and System
 Time/Date Display (Show Time)

Explanation of DR3 Enhancements

Autodial Keys

- Length of stored auto-dialers increased to 24 digits.

Button Inquiry

- Can examine autodial numbers.

Dial 0 Station

- Additional flexibility in multiple service modes.

Flexible Call Restrictions and Overrides

- Restriction override via system speed calls.

Flexible Numbering Plan

- Seven-digit number plan.

Last Number Redial

- 24 digits stored for Last Number Redial.

Line Pool(s) (Busy Status)

- Busy status of line pools indicated on line pool button.

Night Service

- Multiple service modes, automatic activation.
- More than one night ringing set.

On Hook Dialing

- Changed operation due to multiple dialing modes.

Paging – External

- Long tones used with paging system.
- Tones through page output relay.

Saved Number Redial

- 24 digits now stored.

Speed Dial – Personal/System

- 24 digits stored.
- 24 digits stored, plus optional restriction override and name LCD display.

Time/Date Display (Show Time)

- Temporarily displayed during a call.

Norstar/Centrex

Hardware	
3x8 KSU	
Compact KSU	
Modular KSU	✓
Terminals	
M7324	✓
M7310	✓
M7208	✓
M7100	✓
Software	
DR1	
Compact DR2	
Compact DR5	
Modular DR2	
DR3	
DR4	
DR5	
Centrex	✓
Centrex+	
Voice Mail	
StarTalk 1.5	
StarTalk 1.6	✓
StarTalk 2.0	✓
Peripherals	
ATA	✓
BLF	✓
CAP	✓
DCI	✓
SMDR	✓
SAPS	✓
PCI	✓

✓ denotes compatible with

Norstar/Centrex Feature Enhancements*(Norstar/Centrex features use Modular DR3 as the base.)*

Call Forward
 Call Pickup
 Call Waiting
 Conference (Three Party)
 Consultation Hold
 Make Set Busy (Do Not Disturb)
 Executive Busy Override
 (Priority Calls)
 Ring Again
 Transfer Immediate
 Transfer with Announcement

Explanation of Norstar/Centrex Enhancements

Norstar/Centrex provides simplified access to the following features:

- Call Forward
 - All Calls
 - No Answer
 - On Busy
 - Override
- Call Pick-up
 - Group
 - Directed
- Call Waiting
- Conference (Three Party)
- Consultation Hold
- Make Set Busy (Do Not Disturb)
- Executive Busy Override
(Priority Calls)
- Ring Again
 - On Busy Set
 - On Busy Line Pool
- Transfer
 - Immediate (With Callback)
 - With Announcement

Norstar/Centrex Benefits

With simplified access, the user has single-button access to both Centrex and Norstar features. LCD prompts are given for both Centrex and Norstar features. The user selects the feature and Norstar/Centrex automatically selects the correct access. All of this is transparent to the user.

Enhanced Network Value

- Norstar/Centrex creates a superior communications network for multiple locations by sharing a common dialing plan and features.
- Centrex extends to Norstar users network-based features such as Automatic Route Selection (ARS), Multi-Party Conferencing, Electronic Switched Network (ESN), and Tie and WATS lines.

Simplified Feature Access

- One-button access is offered for the most popular Centrex and Norstar features, because Norstar can be programmed to match Centrex access codes to create transparency.
- There is no need to remember access codes for Centrex and Norstar features, due to feature transparency.
- Because of transparency, Norstar's LCD can also prompt users how to use Centrex features.
- Norstar automatically decides between Norstar and Centrex features.

Simplified Dialing

- The Norstar intercom number is programmed to match the Norstar/Centrex number giving each set one Directory Number (DN).
- Line and Intercom buttons are combined into one key labelled "Extension".
- For each originating call, Norstar monitors digits dialed to automatically route the call to its correct Norstar or Centrex destination according to the numbering plan.
- With one DN per set, external and internal calls can be forwarded or transferred to the same set anywhere in the Norstar or Centrex system.

Enhanced Call Coverage

- With a 1A2 Trunk Cartridge and Norstar/Centrex, Norstar can monitor the status of 1A2 single-line telephone sets (busy, idle, ringing) or key sets (busy, idle, ringing, on hold).

Norstar/Centrex Customer Profile

A Norstar/Centrex customer is a business that currently operates in several locations and wants to enhance its operation with Norstar and Centrex features or other network-based services, and wants to improve its call management abilities using Norstar/Centrex.

Modular DR4

Hardware	
3x8 KSU	
Compact KSU	
Modular KSU	√
Terminals	
M7324	√
M7310	√
M7208	√
M7100	√
Software	
DR1	
Compact DR2	
Compact DR5	
Modular DR2	
DR3	
DR4	√
DR5	
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	
StarTalk 1.6	
StarTalk 2.0	√
Peripherals	
ATA	√
BLF	√
CAP	√
DCI	√
SMDR	√
SAPS	√
PCI	√

√ denotes compatible with

New DR4 Features

Auto-Answer
 Call Queuing
 Class of Service
 Dialing Filters
 DISA (Direct Inward
 System Access)
 Enhanced Trunking
 Connectivity: with E&M and
 Direct Inward Dialing (DID)
 Line Redirection
 Target Lines
 Unsupervised Conference

DR4 Feature Enhancements

Direct Dial
 – Multiple Attendants
 – Attendant Digit
 Call Park Prefix Digits
 Line Pool(s)

Explanation of DR4 Enhancements

Direct Dial – Multiple Attendants

- Up to five attendant (direct dial) sets can be specified.

Attendant Digit

- Can be set from zero to nine or none.

Call Park Prefix Digit

- Can be set from zero to nine or none.

Line Pool(s)

- Increased from nine to 15.

Modular DR5

Hardware	
3x8 KSU	
Compact KSU	
Modular KSU	√
Terminals	
M7324	√
M7310	√
M7208	√
M7100	√
Software	
DR1	
Compact DR2	
Compact DR5	
Modular DR2	
DR3	
DR4	
DR5	√
Centrex	
Centrex+	
Voice Mail	
StarTalk 1.5	
StarTalk 1.6	
StarTalk 2.0	
StarTalk 2.0.1A	√
Peripherals	
ATA	√
BLF	√
CAP	√
DCI	√
SMDR	√
SAPS	√
PCI	√

√ denotes compatible with

New Modular DR5 Features

The following are new Norstar Modular Features that are dependent on Call Management Services supplied on your telephone line.

Calling Number Display
 Calling Name Display
 Message Waiting Indicator
 Call Log - Including the

following:

- Auto Bump On/Off
- Caller's Number
- Caller's Name
- Logging Options
- Long Distance Indicator
- Optional Password Protection
- Time Stamp
- Repeat Call Counter
- Automatic Redial

Call Information Session
 Logit Feature (Manual Call Logging)
 Long Distance Indication

Modular DR5

Call Management Services (CMS)

In addition to core support for Call Display features and Central Office Message Waiting indication, the following CMS features interact with Norstar to enhance Norstar's operation.

Please note: Feature Names and availability will vary from region to region.

Automatic Callback (AC)
Automatic Recall (AR)
Calling Number Delivery
Blocking
Calling Name Delivery
Customer Originated Trace
Distinctive Ringing/Call Waiting
Long Distance Indication
Message Waiting Indication
Selective Call Acceptance
Selective Call Forwarding
Selective Call Rejection

Norstar Modular DR5 Feature Enhancements

External/Network Transfer
Paging Capability per set
Transfer with Announce

Explanation of Modular DR5 Enhancements

External/Network Transfer

- Allows the user to transfer calls not only internally but over the public or private network.

Paging Capability per Set

- Individual sets can be denied the ability to perform paging.

Transfer with Announce

- The user announces an internal or external call to the designated party before transferring it by simply staying on the line. To do an immediate transfer, press the OK softkey or the Release key.

DR5 Feature List	Modular	Centrex+	Compact
Accidental Disconnect	Y	Y	Y
Answer Buttons	Y	Y	Y
Auto-Answer Loop Start Trunks	Y	N	N
Auto Dial Keys	Y	Y	Y
Automatic Line Selection	Y	Y	Y
Automatic Set Relocation	Y	Y	Y
Auxiliary Ringing	Y	Y	Y
- through aux. ringer port			
- through paging port			
- for sets			
- for lines			
- for line in service modes			
Background Music	Y	Y	Y
Busy Lamp Indication	Y	Y	Y
- add-on BLF for M7310			
- on M7324 DSS key lamps			
- on line pool key lamps			
Button Inquiry	Y	Y	Y
Call Capture	Y	Y	Y
Call Display When Busy	Y	Y	Y
Call Duration Timer	Y	Y	Y
Call Forward	Y	Y	Y
- Call Forward All Calls, Busy, No Answer (variable delays), override			
Call Identification (internal calls)	Y	Y	Y
Camp On	Y	Y	Y
Central Answering Position	Y	Y	Y
-features, internal/external autodialers on keys			
Central Answering Position Enhanced	Y (5 max)	Y (5 max)	N (1 max)
- line appearances			
Centrex Transparency with V-mail compatibility and Extension Key	N	Y	N

DR5 Feature List	Modular	Centrex +	Compact
Class of Service			
- dialing abilities	Y	Y	Y
- line pool access	Y	N	N
- feature access	Y	N	N
- COS passwords	Y(100)	Y(100)	Y(19)
- COS change via DISA	Y	Y	Y
Conference	Y	Y	Y
- three party	Y	Y	Y
- consultation	Y	Y	Y
- force release a conference	Y	Y	Y
party	Y	Y	Y
- hold conference	Y	Y	Y
- split conference	Y	Y	Y
- transfer via conference	Y	Y	Y
- unsupervised conference	Y	Y	N
(2 party maximum)			
Contrast Adjustment	Y	Y	Y
Copy Set and Admin Data	Y	Y	Y
Delayed Ring Transfer to Prime	Y	Y	Y
Dial-0 Set	Y	Y	Y
Dial External	Y	Y	Y
Dial Intercom	Y	Y	Y
Dial Mode for lines	Y	Y	Y
- Pulse/Tone			
Dial Pad Feedback	Y	Y	Y
Direct Dial Set	Y	Y	Y
Direct Station Select Buttons	Y	Y	Y
DISA	Y	N	N
Disconnect Supervision	Y	Y	N
Discriminating Ringing at Set	Y	Y	Y
Distinctive Ringing Cadence	Y	Y	Y
Do Not Disturb	Y	Y	Y
Emergency Transfer	Y	Y	Y
End-to-End Signalling			
- short tones internal	Y	Y	Y
- short tones external	Y	Y	Y
- long tones internal	Y	Y	N
- long tones external	Y	Y	N
- long tones on external	Y	Y	N
paging port			

DR5 Feature List	Modular	Centrex +	Compact
Enhanced Restrictions and Overrides	Y	Y	Y
- System Speed Dial Restrictions Override			
- Dialing Filters on Set, Line and Set/Line			
External Line Access	Y	Y	Y
Feature Access Key	Y	Y	Y
Flexible Numbering Plan			
- administer individuals DN's	Y	Y	Y
- administer line pool codes	Y	Y	Y
- administer call park prefix code	Y	Y	Y
- administer 'dial-x' code	Y	Y	Y
- only data calls dropped during change	Y	Y	Y
- changing DN length	Y	Y	N
Group Listening	Y	Y	Y
Handsfree	Y	Y	Y
- Answerback			
- Automatic			
- With Mute Capability			
Headset	Y	Y	Y
Hearing Aid Compatibility	Y	Y	Y
Hold	Y	Y	Y
- Automatic Exclusive Hold			
- Exclusive Hold			
- Held Line Reminder			
Hot Line	Y	Y	Y
Installer Password	Y	Y	Y
Intercom Key Assignment	Y	Y	Y
Language Choice	Y	Y	Y
Last Number Redial	Y	Y	Y
- 24 digits			
- previous line			
- convert to auto/speed dial			

DR5 Feature List	Modular	Centrex +	Compact
Line Button Relocation	Y	Y	Y
Line Pool BLF (outgoing)	Y	Y	Y
Line Pool(s)	Y	Y	Y
- designation by letter			(3 pools)
- 15 pools			
Line Pool Codes	Y(15 max)	Y(15 max)	Y(3 max)
Line Profile	Y	Y	N
Line Selection	Y	Y	Y
- manual			
- preselection			
Line Types	Y	Y	Y
- pool			
- public			
- private			
Link	Y	Y	Y
Listen on Hold	Y	Y	Y
Loss Plan	Y	Y	Y
Maintenance			
- system version	Y	Y	Y
- alarms/alarm set	Y	Y	N
- port/DN status	Y	Y	N
- module status	Y	Y	N
- diagnostics	Y	Y	N
- system test logs	Y	Y	N
- system admin logs	Y	Y	N
Messages	Y	Y	Y
- Send Message			
- Message Waiting/Reply			
Multiple Line Appearances	Y	Y	Y
Norstar Manager Support (Phase II)	Y	Y	Y
On Hold Treatment (Music/Silence)	Y	Y	Y

DR5 Feature List	Modular	Centrex +	Compact
On Hook Dialing	Y	Y	Y
- predial			
- standard dial			
- automatic dial			
Paging			
- Page Y or N on a per set basis	Y	Y	N
- internal multiple zones	6 Zones	6 Zones	3 Zones
- external speaker			
- long tones on paging port			
PBX/Centrex Reach Through	Y	Y	Y
- with feature code compression			
- with recalWink			
- programmed release, pause, run/stop, timed release			
Pre-Selection/Call Screening	Y	Y	Y
Prime Line	Y	Y	Y
Prime Set(s)	Y	Y	Y
- call forward transfer to prime set			
- callback extension to prime set			
- default ringing			
- delayed ring transfer			
- DND selective call forward			
- DND transfer to prime set			
- HLR external to prime set			
- overflow call routing	Y	Y	N
Priority Call	Y	Y	Y
Privacy on Lines	Y	Y	Y
Privacy Control	Y	Y	Y
Pulse to Tone Conversion	Y	Y	Y

DR5 Feature List	Modular	Centrex +	Compact
Release	Y	Y	Y
Remote Access Features	Y	N	N
- remote paging			
Remote Access DNs	Y	N	N
- target line DNs			
- DISA DNs			
- auto answer DNs			
Remote Access Facilities	Y	N	N
- line pool access			
Ring Again (internal)	Y	Y	Y
Ringing Call	Y	Y	Y
Ringing Line Preference	Y	Y	Y
Saved Number Redial	Y	Y	Y
- 24 digit			
- previous line			
Selective Line Redirection	Y	Y	N
Service Modes	Y	Y	Y
- control phone			
- three settings/day			
- automatic time of day/manual			
Set Names	Y	Y	Y
Set Profile	Y	Y	N
Set Speed Dial	Y	Y	Y
System Speed Dial	Y	Y	Y
- restriction override capability			
- naming outgoing digits			
- 24 digits			
Startup Templates			
- Square	Y	Y	Y
- Hybrid	Y	Y	Y
- PBX	Y	Y	Y
- Centrex	Y	Y	N
Target Lines	Y	N	N
Telephone Admin Lock	Y	Y	Y
Time/Date Display	Y	Y	Y

DR5 Feature List	Modular	Centrex +	Compact
Transfer	Y	Y	Y
- unified immediate and with Announcement			
- with Callback			
- via Conference (internal/external)			
- via Hold			
- over public or private network	Y	N	N
Trunk Type Admin	Y	N	N
Trunk Answer From Any Stn	Y	Y	Y
Trunk Mode	Y	Y	N/A
- Supervised			
- Unsupervised			
User Programmable Feature Keys	Y	Y	Y
Voice Call (manual, automatic)	Y	Y	Y
Voice Call Deny	Y	Y	Y
Volume Control	Y	Y	Y
CMS Interface	Y (via CII/TC)	Y (via CII/TC)	Y
- via CII and TC			(via CII)
CMS Features			
- Calling Number Display (dialable DN if available)	Y	Y	Y
- Calling Name Display	Y	Y	Y
- Message Waiting Indication	Y	Y	Y
- Long Distance Indicator	Y	Y	Y
- Call Information Feature	Y	Y	Y
- LOGIT Feature (Manual Logging)	Y	Y	Y

DR5 Feature List	Modular	Centrex +	Compact
Caller Log	600 calls	600 calls	160 calls
- Call Memory/System	Y	Y	Y
- Flexible Log Size Assignment	Y	Y	Y
- Flexible Log Ownership (per line per set)	Y	Y	Y
- Auto Logging Options (Manual,unanswered on system,unanswered at set, all calls)	Y	Y	Y
- Repeat Call Counter	Y	Y	Y
- Answered Call ICON and Long Distance Indicator	Y	Y	Y
- Time and Date	Y	Y	Y
- Optional 4 Digit Password	Y	Y	Y
- Number, Name, Linename	Y	Y	Y
- Number Editing and Callback	Y	Y	Y
- Log management (scrolling, manual deletion)	Y	Y	Y
- Autobumping Option	Y	Y	Y

DR5 Feature List Notes

- Dialing Filters for Compact are as follows: Maximum 25 dialing filters, maximum of 200 restriction and exceptions programmed on filters, maximum of 255 dialing filter assigned to lines on phones.
- Disconnect Supervision is not provided on Compact at this time. All features which require disconnect supervision are not provided on Compact (selective line redirection).
- Transfer capability over the public and private network is provided for Modular DR5 only as it requires disconnect supervision (see Non Class/CMS functionality).

Alphabetical Listing of Features and Benefits

*Note: * denotes the described feature as a CMS line feature and not a Norstar feature.*

Accidental Disconnect Protection

If the receiver is accidentally dropped back into the cradle during a call, it can be retrieved within one second.

Prevents calls from being lost and thereby provides more professional call handling.

Answer Groups

One set monitors the ringing of a group of sets and calls are answered by pressing the programmed answer button.

Allows a person to monitor or answer all calls at another phone by simply pressing one button.

Auto-Answer

Used with DID and E&M trunks, calls are automatically answered by the Norstar system bypassing the attendant; a caller enters the digits for routing to a specific set or line pool access.

Improves customer service by offering more efficient incoming call handling.

Auto Bump On/Off

~ i (On)
~ E ; (Off)

When a Call Log becomes full, Auto Bumping — On will cause the oldest entry to be deleted, and the new call is logged; when Off, the Norstar system will not log new calls.

Automated log management if desired.

Autodial (Internal and External)

External ~ ¥
Internal ~ ¥

Internal or external numbers can be programmed onto memory buttons for one-button dialing access.

This feature saves time by providing direct access to another person in or outside the office with no need to remember the number.

Automatic Callback (AC) *

Automatically re-calls the last outgoing number dialed. If the re-called number is busy, a "Ring Again" is applied against the number. The Central Office monitors the line until it becomes free. When free, it notifies the user with special ringing and delivers the number and/or name of the free party. Ring Again is automatically cancelled if the line does not become free within 30 minutes. It can be applied to multiple busy numbers. The feature can be programmed as an external autodial for one button convenience.

Improves productivity as the user is free to work while waiting. The user can continue to receive or place calls on that line. Norstar reproduces the special ring, audibly alerting the worker that their customer is now available. When applied on multiple numbers, call display allows workers to identify which customer is now available.

Automatic Line Selection

When answering incoming ringing calls, Norstar automatically selects the longest ringing line first. Ringing incoming calls are automatically connected by lifting the receiver or pressing Handsfree.

A user does not need to know which line is ringing or which call has been ringing the longest.

Automatic Recall (AR) *

Allows the user to have the Central Office automatically redial the number of the last incoming call. If the called number is busy, a "Ring Again" is applied against the number. The Central Office monitors the line until it becomes free. When free, it notifies the user with special ringing and delivers the number and /or name of the free party. Ring Again is automatically cancelled if the line does not become free within 30 minutes. The feature can be programmed as an external autodial for one button convenience.

Improves productivity as the user is free to work while waiting. The user can continue to receive or place calls on that line. Norstar reproduces the special ring, audibly alerting the worker that their customer is now available.

Automatic Set Relocation

Sets moved to a different location will retain all custom programming.

Saves time and money during employee moves. Employees are also able to keep the same extension number.

Auxiliary Ringer Interface

A set's headset jack can send ringing tones via an amplifier to an external loud ringer connected to the set.

Users can hear a ringing set in a noisy environment.

Background MusicFeature ☐ 8 ☐ 6

A user can listen to music (customer supplied) through the set's speaker when the set is idle.

If supplied, it delivers music to a user's set to enhance their work environment.

Button (Key) InquiryFeature ☐ * ☐ 0

Allows a user to check the programming labelled memory buttons.

Ensures current programming matches the button labelling.

Call Duration TimerFeature ☐ 7 ☐ 7

Temporarily displays the length of the last or current call so a user can make record it.

Users can track time spent on calls; useful for account billing.

Call Forward All CallsFeature ☐ 4

Sends all calls to another set. Improves customer service by ensuring all calls are answered.

Call Forward No Answer

After a preset number of rings, an unanswered call is transferred to another DN. Ensures a user's phone is answered if the user is unable to answer a call or has forgotten to activate Call Forward.

Call Forward On Busy

If a set is busy, calls are immediately sent to another DN. When a set is busy, the user is not disturbed and incoming calls are answered promptly.

Call Forward Override

When a set is on Call Forward, the "Forward To" set can still call the "Forwarded" set to relay important messages.

This feature improves office communications; users can inform others of important messages or ask for forwarding to be cancelled.

Call Forward – SelectiveFeature ☐ 8 ☐ 5

Pressing the "Do Not Disturb" button when a Central Office line is ringing will transfer the call to the Prime set.

Improved time management results for the user, who can view the caller's name and then choose to accept or reject it.

Call Identification (Internal) Call**Status Display – Line Names**

Names can be programmed for incoming and outgoing lines. Informs the user of whose line is ringing to permit more personalized greeting when answering; users can also quickly identify which outgoing line they are using.

Call Identification (Internal/Call)**Status Display – Set Names**

Names can be programmed for internal sets.

Lets users screen calls and verify status on the LCD display; forwarded calls are answered more professionally, because the display shows to whom the call was originally placed.

Call Information

Feature ☐ 8 ☐ 1 ☐ 1

Allows you to display information about incoming calls. For external calls, you can display the caller's name, telephone number and the line name. For internal calls, you can display the name and the internal number.

You can obtain information about rining, answering, or held calls.

Call Log

Feature ☐ 8 ☐ 1 ☐ 2

Allows the user to enter Call Log to view stored information including: Caller's Name, Caller's Number, Date and Time, Answered Call Indication, and Repeat Call Counter.

*depending on whether or not the information is delivered from the Central Office.

Increases business opportunities and improves customer service by capturing callers number and/ or name even if the call goes unanswered. It also improves productivity by allowing a user to redial the caller's phone number.

Call Log - Optional Password

The user can enable password protection of their call log.

Provides the user with security for their call log.

Calling Name Display

The user can view the name of the incoming caller, before answering and during the call.

Calling Name is also stored in the Call Log. (Requires CMS.)

Knowing who is calling improves a user's ability to serve the customer. In conjunction with Call Log, knowing who called increases business opportunities. The caller's name can be passed to an associated PC application to improve customer service, for example, by triggering automatic customer profile retrieval.

Calling Number Display

The user can view the number of the incoming caller before answering and during the call.

The calling number is also stored in the Call Log. (Requires CMS.)

Knowing who is calling improves a user's ability to serve the customer. In conjunction with Call Log, knowing who called increases business opportunities. The caller's number can be passed to an associated PC application to improve customer service, for example, by triggering automatic customer profile retrieval.

Calling Number Display Blocking

Delivery of calling name and/or number can be prevented when a user places a call. The Norstar user will be presented with "Private Name" and/or "Private Number" when receiving a "blocked" call. For outgoing calls, Norstar supports one button convenience when the user wishes to "block" their number and/or name. (Requires CMS)

Privacy and security are maintained for outgoing calls. Identifies callers who have blocked their number and/or name for inbound calls.

Call Park (With Callback)

Feature ☐ 7 ☐ 4

An active call can automatically be placed on hold and assigned a code so it can be retrieved from another set.

Convenience and efficiency are increased; parked calls can be retrieved from any Norstar set in the system.

Call Pickup Directed

Feature ☐ 7 ☐ 6 + Intercom #

By dialing the ringing set's intercom number, a ringing call at any other set can be answered.

It is simple and convenient to answer calls ringing at another set. The user will know whose set they are picking up.

Call Pickup Group

Feature ☐ 7 ☐ 5

Users can answer any call ringing at another set within the pickup group.

Lets users within a defined group provide more efficient call coverage for incoming calls ringing at another set within the group.

Call Pickup Trunk Answer From Any Station

Feature ☐ 8 ☐ 0 ☐ 0

Allows a ringing external call to be answered at any other set. Improves after-hours communications, as calls can be heard and answered from any station.

Call Queuing

Feature ☐ 8 ☐ 0 ☐ 1

Call Queuing answers the next available call, but gives priority to the longest waiting external call.

Improves customer service, because calls are answered promptly and efficiently. (Used with DR3 and over)

Call Waiting

Feature ☐ 8 ☐ 0 ☐ 1

The next available call is answered, but gives priority to the longest waiting external call. Same benefits as Call Queuing. (Used with Centrex and Centrex + software only.)

Callback

Unanswered parked or transferred calls automatically return to the originating set after a preset number of rings. Customer service is improved as all calls will be answered.

Camp On (Call Waiting)

Feature 8 2

An external call waits at a busy set, making alerting tones, until answered or Callback returns it to the originating set.

Allows more calls than a set has lines to wait at a set; alerting tones or illuminated LCD notify the user of a waiting call.

Class of Service

Class of Service controls the Norstar features and lines available to you when a call is placed within the system or remotely; it can be associated with a line, a set, or a Class of Service (COS) password.

It offers efficient system control and management.

Class of Service (COS)**Password**

COS password is a six digit code that lets you switch from your current class of service to one that lets you dial a number prohibited by your current class of service. It is used when DISA access is controlled with passwords.

It minimizes unauthorized system access.

Compression of Feature Codes

Reach-through codes (link, run/stop, programmed release, pause) can be compressed to use less digit space in Autodial or Speed Dial programming modes.

Space for longer numbers, features or access codes in Autodial or Speed Dial sequences is expanded.

Conference (Three-Person)

Feature 3

A three-person call with two other internal or external parties can be established by using this feature. Conferences are easily set up with LCD prompts; Automatic Hold protects the first call from being accidentally cut off.

Allows you to hold a meeting over the phone.

Consultation Hold

A user can put a call or conference on hold to consult with others on another line; held parties can still converse with each other.

A user can obtain additional information without having to terminate and later re-establish the call, thereby saving time and effort.

Custom Business Products Compatibility

Interfacing with an IBM-compatible PC is made possible with a PCI Card or a Norlink unit, allowing access to PC programs specially developed for Norstar. Gives the system expanded functionality.

Customer Originated Trace *

The user can cause the number of the last incoming call to be sent to the telephone company. This includes calls where the caller has blocked delivery of their name and /or number.

Note: The user does not receive the number of the caller.

Security procedures will vary with different telephone companies.

It helps eliminate malicious and nuisance calls.

Delayed Ring Transfer

A call is automatically transferred to a "prime set" after a preset number of rings.

All calls are answered, thus improving customer service.

Dial "0" Station

This designated receptionist set can be reached from any other set in the system by pressing

followed by .

A receptionist or control person in the office can be reached quickly and easily.

Dial Intercom

To quickly call co-workers internally, a user can press the Intercom button and dial the intercom number.

This feature provides easy access to co-workers, while keeping outside lines free.

Dialing Filters

Restriction override tables are replaced from previous Modular software versions; a maximum of 100 line, set, or line/set filters provide virtually unlimited flexibility in programming dialing restrictions and exceptions. Access to lines can be well controlled.

Dialing ModesFeature ☐ * 8 2

A user can select from the following dialing mode options. Options make Norstar more user friendly.

Dialing Mode: Standard

Lets a user choose a line and dial a call using either the receiver or handsfree. Offers a more efficient dialing process.

Dialing Mode: Automatic

Pressing a dialpad button will automatically select the set's Prime line, thus saving time. A convenient, handsfree dialing option.

Dialing Mode: Pre-Dial

A person enters, checks and edits a number, before selecting a line. Dialing mistakes are eliminated.

Direct Dial – Flexible Digits

A system-wide digit used to call a direct dial set can be any digit from 0-9. Internal dialing and communications are enhanced.

Direct Dial – Multiple Attendants

More than one attendant set can be specified for better informed call reception and customer service.

As call reception is better informed, customer service is improved.

Direct Inward System Access (DISA)

Used as a security feature to control remote access into the Norstar system using Central Office lines; configured with Loop, DID and E&M Trunks. Controls Norstar system access.

Disconnect Supervision

After an external call disconnects, Norstar drops the line immediately.

Disconnect Supervision prevents the system from identifying a line as on hold or busy, thus denying access, when in fact it is really idle. (Note: the local telephone company must also support Disconnect Supervision.)

Discriminating Ringing

Norstar sets ring differently for internal and external calls so users can easily distinguish between call types.

This feature provides improved call handling and customer service.

Distinctive Ringing/Call Waiting *

A user is alerted with special ringing or call waiting tones, if the caller is included in a user-specified list of numbers. Improves customer service by providing an indication of a special customer's call.

Do Not Disturb (DND)Feature ☐ 8 ☐ 5

Incoming calls will not ring at a set, but the LCD line indicator will continue to flash as calls are forwarded to the prime set. This allows uninterrupted work when necessary.

Emergency Transfer/Power Fail Cut-through

During an electrical power failure, basic telephone service can be maintained through a 500/2500 set.

A person can continue to do business in the event of a power outage.

End-to-end Signalling – External

Temporarily changes can be set from pulse to tone mode by pressing ☐ to signal external systems and devices.

Improves external communications by letting users activate/access equipment such as voice recording devices.

End-to-End Signalling – Internal

Sends Dual Tone Multifrequency (DTMF) tones over Norstar intercom lines to signal analog devices through an ATA.

Improves internal communications by letting users activate/access equipment such as voice recording devices.

Enhanced Trunking Connectivity**Private Network – E&M (Tie) Trunk Connectivity**

E&M Type II trunks can be connected to a Norstar system to create a Norstar network between locations. For each system within the network, the length of directory numbers (DNs), line pools, and line pool access codes would be the same.

Ensures cost-effective efficient internal communications.

Enhanced Trunking Connectivity**Public Network – DID Trunk Connectivity**

DID (Direct Inward Dialing) trunks let incoming callers bypass the attendant and be directly routed to a target line. Improved call handling.

**Enhanced Trunking
Connectivity****Public network - Remote
Access**

Remote access (with or without DISA) provides off-site remote access to Norstar's private or public network facilities, which avoids public network toll costs. This will help to improve cost controls.

**Executive Busy Override
(Priority Calls)**

Within a Norstar Centrex system, users can force a voice connection with a busy set or one on "Do Not Disturb" anywhere in the system; the interrupted party is automatically put on hold.

In the case of a true emergency, the calling party can establish contact.

**External/Network Transfer
(New DR5 feature - Modular
Only)**

Allows the user to transfer calls not only internally, but over the public or a private network. Improves customer service by allowing the user to transfer the caller to the correct party, even if they are not on the Norstar system.

External Line Access

Outside lines are directly accessed by buttons on individual phones or indirectly by a line pool.

Users can bypass the receptionist to place outside calls, thereby saving time and money.

Feature Access

Feature *

A person can program any feature code onto a memory button.

Offers fast, single-button access to frequently-used features.

**Flexible Call Restrictions and
Overrides**

Call restrictions and overrides can be applied to individual lines and/or sets, but can be overridden using passwords. This feature maintains Call Restrictions cost control, yet provides access to selected numbers within the restricted categories.

Group ListeningFeature 8 0 2

An incoming voice is heard on both handset and speaker, while an outgoing voice occurs only through the handset. (Not available with the M7100).

While a group listens to a call through the speaker, the caller hears more clearly through the receiver, as it eliminates background noise.

Handsfree Answerback

Internal voice calls automatically turn on the set microphone so users can reply without touching the set.

A user can answer the telephone and continue working; the caller terminates the conversation.

Handsfree – Automatic

A person can program the set microphone and speaker to automatically turn on every time a call is answered or placed. (Not available with the M7100.) Saves time by providing more convenient handsfree operation.

Hold – Automatic

An active line automatically goes on hold if the user forgets to press the Hold button, before selecting a second line, an intercom or a Transfer button. Internal and external calls are prevented from accidental cut-off during transfers.

Hold – ExclusiveFeature Hold or
Feature 7 0

Your call can only be retrieved at the set where it was placed on hold.

Your privacy is ensured.

Held Line Reminder

External calls on hold play periodic reminder tones over the set speaker until the call is retrieved.

Customer service is improved, because a user will be less likely to forget the call.

I-Hold/U-Hold Indication

LCD line indicators will flash faster for held calls at the user's own set than for calls on hold at other sets.

It is easy to identify calls held at your own set from those held at others' sets.

Hot Line

A set can be programmed to call a specific internal or external number whenever its handset is lifted or the handsfree button is pressed.

Convenient, direct access to a frequently-called location saves time and effort.

Language Choice

Feature * 5 0 1 or
* 5 0 2

A user can switch between English or French messages for the set display.

Individuals can choose their preferred language by set rather than on a system basis.

Last Number Redial

Feature 5

A person can automatically redial the last externally dialed number.

It is convenient to redial a busy number, and it saves time.

Line Pool(s)

Feature 5 4

A user can select a line from a pool of lines using an access code when several external lines are shared by a group of telephones.

When a group of lines are shared among a number of sets, line costs and the number of button appearances are reduced.

Line Pool(s) – Busy Status

When all Line Pool lines are busy, the associated LCD set indicator will turn on.

This feature saves time, because users don't have to keep checking for a free line.

Line Profile

Feature * * 5 4 6 3

Line settings programmed in Configuration and Administration will appear on the M7310 or M7324 set display. (Not available on Compact.)

Programming information is easily verified.

Line Redirection

Feature 8 4

(Often referred to as **Selective Line Redirection**). Incoming calls on one or more lines can be redirected on a Norstar set to one or more locations outside the system complying with associated dialing filters. Redirected calls cannot be answered from another set. (Not available with M7100 or on Compact).

Users can receive calls at any location.

Link/Flash (Recall)Feature

If the Norstar system is connected to a PBX or Centrex, a link signal can be used to access special features.

Allows the Norstar system to hear a "second dial tone", before accessing Centrex or PBX features.

Listen On Hold

Users "on hold" may go on working without holding the handset by pressing the hold button, replacing the handset and then reselecting the held line to monitor the call through the speaker.

Users can continue to work without having to hold the receiver, while waiting for the caller to return.

Logging OptionsFeature

The user can determine which type of calls will be logged at a set (i.e., no one answered, unanswered by me, log all calls, and no autologging).

Allows user to customize own set. Also allows the user to capture the calling information on calls that are important to them.

LOGIT (Manual Call Logging)Feature

If calls are not automatically logged, Logit lets the user manually log an incoming call after it is answered.

Allows the user to capture calling information for only those calls that are important to them. The automatic one-button process eliminates manual system: eliminates errors.

Long TonesFeature

Sends long DTMF tones to access devices requiring this tone.

Users are able to operate devices requiring long continuous tones.

Loud Ringer Interface

An additional ringer can be attached to sets to amplify ringing in noisy locations.

Users do not miss important calls in noisy environments.

Maintenance Alarms

Alarm codes appear on a designated Alarm Telephone to notify users of a component fault and its location within the system.

Instant notification and diagnostic information for problems requiring distributor servicing are provided.

Make Set BusyFeature 8 1 0

Activated on a Centrex line, this feature makes the associated Centrex line busy.

This feature minimizes interruptions without losing calls.

Manual Line Selection

Idle or ringing lines are selected by pressing them to override the automatic line selection feature.

Lets a user override the Automatic Line Selection feature.

Message Leave (List)Feature 1

Display messages ("Message for you") are sent to other set displays requesting a call back. By leaving a message, time is saved as the caller does not have to keep calling back, or leave a message with a receptionist.

Message Waiting (List)Feature 6 5

Designed to improve internal communications, you can call back the person who sent "Message for you" to your display or cancel the message. Improves internal communications.

Message Waiting Indication

Provides a visual "Message for You" indication for each line with a mailbox on a Central Office based voice mail system. (Requires CMS)

By visually checking for messages, a user can save time. Provides an inexpensive voice mail solution for the user who cannot justify the expense of an integrated StarTalk solution.

Move LinesFeature * 8 1

Assigned lines are moved to different LCD memory buttons on the set (except Handsfree, Intercom or Answer buttons) or Enhanced CAP. (Not available with the M7100.)

Users can customize the line appearance on their sets, as well as line answering patterns.

Music/Tone/Silence On Hold

External callers on hold within the system can listen to music (customer supplied), a periodic tone, or silence as preset by the System Administrator.

Tones or music assures callers they are still on hold and have not been disconnected, thus reducing the number of abandoned calls.

Night Service

Outside calls that normally ring at the Prime Set can also ring at additional, preselected sets during preset times.

After-hours calls can be heard or answered anywhere in the system, improving internal communications and customer relations.

Night Service – Service Modes

Feature

Three different service modes can be programmed (i.e., lunch, evening, night) with their own ringing arrangements for automatic or manual activation. Increased control over the system's call handling set-up over three periods of time offers greater system flexibility.

Numbering Plan – Flexible

The length and sequence of digits needed to access other sets or outside lines can be controlled.

Users can be given intercom numbers to match other PBX and Centrex numbers.

On-Hook Dialing

A user can conveniently choose to dial directly from the dialpad and speak using the handset or Handsfree button.

This adds convenience for the user.

Paging – Internal

Feature

Internal Zones

Feature Zone 0-6

A user can initiate a page or be paged internally through the set speakers. It is also easy to make announcements through the Norstar set speakers to a select group of users or to all sets. Users away from their sets, but within the office, can still be notified of calls.

Paging – External

Feature

When Norstar is connected to a user-supplied amplifier and speaker, the user can make external paging announcements. Paging announcements can easily be sent to rooms or areas without telephone sets.

Paging – External and Internal

Feature Zone 0-6

Announcements can be made using both the Norstar set speakers and the office's loudspeaker system.

It is easy to make system-wide announcements to everyone within your organization.

Paging Set Access

Individual sets can be denied the ability to perform paging. Improved security of paging system. Sets in open areas can be denied the ability to page i.e., classrooms or motel rooms.

Pause

Feature ☐ 7 ☐ 8

For pulse and tone dialing, a 1.5 second delay is inserted between digits dialed.

Allows one button access to a series of digits that need to be separated thus saving time.

Password Protection

The system administration password can be changed by the coordinator for added security.

This security feature helps to protect system programming data.

Pre-Selection/Call Screening

The assigned name of the caller's set or line will appear on the set display.

The user can identify the caller or the line being used.

Prime Line

A line (CO, Intercom, or Line Pool) can be assigned to a set as its primary line of use for automatic outgoing line selection.

It saves time, as a user can begin dialing immediately without selecting a line.

Prime Set

A set can be designated as back up to receive unanswered calls via Delayed Ring Transfers, Held Line Reminders and Do Not Disturb transfers, and overflow call routing.

Offers more efficient call handling.

Priority Calls

Feature ☐ 6 ☐ 9

This feature can interrupt a conversation on a busy set or override Do Not Disturb (DND). In the case of an emergency, the caller can be reached.

Users have the option to block a Priority Call, but it cannot be ignored.

Privacy

Privacy automatically prevents another telephone, which shares your line, to access or join your call.

Security and confidentiality are assured.

Privacy ControlFeature 8 3

The Privacy ON/OFF switch lets a third person join the call.

A two-way call can easily be turned into a conference call.

Private Lines

External lines can be designated as exclusive to one set.

The user is provided with extra privacy, as well as immediate external line access.

Programmed ReleaseFeature * 8 9

Programmed at the end of an external autodial sequence from a PBX or Centrex. It works like Ris , but maintains the line for that user.

Time is saved by letting a single button be programmed to end a call once the information has been sent.

Pulse/Tone Dialing

Dialed numbers can be automatically programmed as pulse or tone signals, as is appropriate for each line.

This facilitates system operation, regardless of the signaling type used by the local telephone exchange.

Restriction Override**Password**Feature 6 8 + Password

A user can bypass any call restrictions applied to any set or line.

Selected users are given convenient and efficient access to a restricted set or line.

Ring Again on Busy SetFeature 2

Ring Again alerts a user when a previously busy set becomes available.

Users save time because they are free to continue working, until the busy set becomes idle.

Ring Again on Busy Line Pool

A user is alerted when a line becomes free in a line pool.

This feature saves time and frustration as users can continue working without monitoring the availability of busy outside lines.

Ring Again on No Answer

Norstar Ring Again notifies a user when a set that was not answered is used.

Avoids unnecessary redialing and is an efficient way to know when someone has returned to their office.

Ring Line Preference

When several lines are ringing, the longest ringing call will automatically be queued to be answered first.

Provides better customer service as a user can answer calls in the order they were received.

Run/Stop

Feature *

Inserts a break point between external autodialers being stored on the same memory button; each press dials the number up to the next break point.

Dialing is faster as the complete sequence can be saved on one button.

Saved Number Redial

Feature or Last No.

It saves and later recalls the external telephone number appearing on the display.

A person can quickly redial the number thus saving time and effort.

Selective Call Acceptance *

When activated, incoming calls are screened against a user specified list of acceptable numbers.

Unnecessary interruptions are filtered out; security is provided for controlled access to computer facilities.

Selective Call Forwarding *

When activated, incoming calls are screened against a user-specified list of numbers and accepted calls are forwarded to a designated number.

Customer service is improved, because the user can give special treatment to important calls.

Selective Call Rejection *

When activated, incoming calls are screened against a user-specified list of numbers to be rejected. If rejected, the caller hears a message informing them the called party does not wish to receive their call; the last incoming number can be added to the selective call rejection list even if the number is "Private".

This feature provides an effective deterrent to malicious, nuisance calls especially when combined with Call Trace.

Selective Line Redirection

(See Line Redirection)

Set ProfileFeature ☐ * ☐ 7 ☐ 3 ☐ 8

Using an M7310 or M7324, the user can view system administration data for each set in the system.

Improved network control results, as an administrator can view programming information on specific set configurations and general administration data.

Speed Dial Access – Personal and SystemFeature ☐ 0 + Code

Allows a person to access both Personal and System Speed Dial Codes.

It prevents dialing mistakes, saves time, and is more convenient.

Speed Dial Line Selection

For speed dialing, the system will use a specific line as determined in administration. Line selection allows the preprogramming of specific lines for each number.

Speed Dial Personal ProgrammingFeature ☐ * ☐ 4

Allows a user to add or change a Personal Speed Dial number on their set.

Fast error-free dialing is provided for a user's personal telephone directory, with increased flexibility.

Speed Dial System Bypass Restrictions

Speed dial numbers can be programmed to override set and line restrictions.

This feature allows easy access to selected numbers within restricted categories.

Speed Dial System Names

A name, instead of a number, can be programmed to appear on the set display whenever that speed dial code is accessed. The actual number being dialed remains confidential.

Target Lines

A Target Line is a virtual line, not physical, dedicated to receiving and routing incoming calls on DID or auto-answer trunks to a specific destination; DR5 supports up to 104 target lines which offer attendant bypass and line concentration. This software enables the optimum use of available resources.

Telephone Administration Lock

Three settings (Full, Partial, None) can be programmed in Administration.

It controls the specific features a user can program/use on their set.

Time and Date Display

The time and date appear on the LCD display of an idle set. It eliminates a person's need to have a clock at their workstation.

Time and Date - Show Time

Feature ☐ 8 ☐ 0 ☐ 3

Temporarily displays for three seconds the time and date while on a call.

It can prove useful in a busy office environment.

Timed Release

Feature ☐ 7 ☐ 2

Signal releases a call from the line, but keeps the line for another call.

If you are making consecutive fax or data calls, you don't have to worry about access to that line.

Transfer Immediate (With Callback)

Feature ☐ 7 ☐ 0

A call can be transferred directly to another set; if unanswered, callback occurs after a preset number of rings.

The handling of transferred calls is enhanced.

Transfer Using Conference

The Conference/Transfer button can be used to transfer a call to an internal number.

This feature ensures a party is not lost during a transfer; better customer service and more professional call handling result.

Transfer Using Hold

The Hold button can be used to transfer a call.

It provides a quick and convenient method of transferring users sharing the same line appearances.

Transfer with Announce

A user announces an internal or external call to the designated party before transferring it by simply staying on the line. To do an immediate transfer, press "OK" softkey or the release key. The user transferring a call can verify the person is available to receive the transfer.

Unsupervised Conference

A conference call can be established with two outside parties; the user can then exit from the call without disconnecting the remaining two people, provided one of those callers was incoming and the incoming line has Disconnect Supervision.

Two parties can continue a conversation not relevant to the third one without the inconvenience of disconnecting and re-calling each other.

Voice Call

Feature 6 6

A user can save time by making a voice announcement or beginning a conversation through the speaker of another telephone.

This feature saves time.

Voice Call Deny

Feature 8 8

This feature prevents a set from receiving Voice Calls.

Interruptions from Voice Calls can be prevented, while the user is still alerted of incoming internal calls.

Terminals

4

Terminals or sets are the best advertisement for any telephone system, because users see and use them every day. Knowing this, four unique proprietary Norstar terminals or sets were developed: M7324; M7310; M7208; and M7100. While they share many similarities, each terminal has its own specialty in terms of feature capabilities and level of functionality.

Station Set Numbering Plan

M7310	M7324	M7208	M7100
M - Meridian	M - Meridian	M - Meridian	M - Meridian
7 - Norstar Product	7 - Norstar Product	7 - Norstar Product	7 - Norstar Product
3 - # of LCD + 1 Hands-free button	3 - # of LCD + 1 Hands-free button	2 - # of LCD + 1 Hands-free button	1 - # of LCD + 1 Hands-free button
1 - # of LCD 0 equipped buttons	2 - # of LCD 4 equipped buttons	0 - # of LCD 8 equipped buttons	0 - # of LCD 0 equipped buttons

Common Norstar Terminal Features

	M7324	M7310	M7208	M7100
Display				
LCD Lines	2	2	1	1
Characteristics	16	16	16	16
Display buttons	√	√	X	X
Headset Jack	√	√	√	X
Loud Ringer Interface	√	√	√	√
Memory Buttons				
With indicators	24	10	8	0
Without indicators	0	24(1)	0	1
Volume Control				
Ringer	√	√	√	√
Speaker	√	√	√	√
Wall Mountable	√(2)	√(2)	√	√
Accessories				
BLF Module	X	√	X	X
CAP Module	√	X	X	X
DCI	√	√(3)	√	√

(1) 12 Dual function buttons.
 (2) Not when a BLF or a CAP module is attached.
 (3) Optional integration into base.

Terminal Customization

These feature codes let users personalize their terminals:

Feature codes

* 0	Button/Key Inquiry
* 1	Autodial Button (External)
* 2	Autodial Button (Internal)
* 3	Feature Programming
* 4	Personal Speed Dial
* 6	Ring Type Selection
* 7	Contrast Level Adjustment
* 8 0	Ring Volume Adjustment
* 8 1	Move Lines
* 8 2	On Hook Dial Mode
* 5 0 1	English Display
* 5 0 2	French (Can.)/Spanish (U.S.)

M7324 Terminal



	M7324	M7310	M7208	M7100
Software				
DR1		✓	✓	
Compact DR2	✓	✓	✓	
Compact DR5	✓	✓	✓	✓
Modular DR2	✓	✓	✓	
DR3, DR4, DR5	✓	✓	✓	✓
Centrex, Centrex+	✓	✓	✓	✓
Accessories				
BLF		✓		
CAP	✓			
DCI-B		✓		
DCI-D	✓	✓	✓	✓

Description

The M7324 Expanded Set is the best choice for a full-featured terminal or central answering position, because it offers 24 programmable buttons with an LCD for one-button access to any combination of lines, features and autodial numbers. Up to two Central Answering Position (CAP) modules (48 buttons/module) can be attached to one terminal to create powerful call coverage for many lines or to accommodate additional Norstar features.

Target Audience

The M7324, with or without CAP modules, is designed for secretaries and receptionists for centralized call answering. It is also useful for managers, professionals, and system administrators requiring high feature usage and access to various lines, such as WATS and private lines.

Applications

For smaller applications, the M7324 by itself, is a central answering position; larger applications require the addition of CAP module(s). Stock brokers could use it with two CAP modules for fast autodial access to preferred customers. Users with wide-ranging needs, such as consultants, might use it for Speed Dialing, Conference Calling, Call Forwarding and Hourglass (PC Applications) for tracking project time. The M7324 is also useful for Norstar system administration.

M7310 Terminal



	M7324	M7310	M7208	M7100
Software				
DR1		✓	✓	
Compact DR2	✓	✓	✓	
Compact DR5	✓	✓	✓	✓
Modular DR2	✓	✓	✓	
DR3, DR4, DR5	✓	✓	✓	✓
Centrex, Centrex+	✓	✓	✓	✓
Accessories				
BLF		✓		
CAP	✓			
DCI-B		✓		
DCI-D	✓	✓	✓	✓

Description

The M7310 Feature Set is capable of handling extensive calling and call handling requirements. The 12 dual-function memory buttons, with a Shift button, provide access to 24 additional frequently-used features or autodial numbers. A Busy Lamp Field (BLF) can be attached to the M7310 to monitor another 24 positions.

Target Audience

The M7310 is ideal for group answering positions, such as secretaries, managers, professionals, and Norstar system administrators with or without a BLF. Businesses requiring extensive autodialing and feature access would also benefit from using the terminal.

Applications

The M7310 is useful for departments, such as purchasing, sales or accounting, where the same suppliers, customers or accounts are frequently called. For secretaries, the M7310 and BLF can provide backup answering services. Norstar system administration is made easy using the M7310.

M7208 Terminal



	M7324	M7310	M7208	M7100
Software				
DR1		✓	✓	
Compact DR2	✓	✓	✓	
Compact DR5	✓	✓	✓	✓
Modular DR2	✓	✓	✓	
DR3, DR4, DR5	✓	✓	✓	✓
Centrex, Centrex+	✓	✓	✓	✓
Accessories				
BLF		✓		
CAP	✓			
DCI-B		✓		
DCI-D	✓	✓	✓	✓

Description

The M7208 Square Set is well suited for lower internal and higher external calling volumes; it supports up to any combination of eight lines and frequently-used features.

Target Audience

The M7208 is a cost-effective set for users needing only a few programmable features and/or autodial numbers.

Applications

The M7208 can be used as a courtesy phone in lobbies, cafeterias, reception areas, or staff lounges. It is also suited for areas where staff numbers are relatively high compared to the number of telephones needed, such as manufacturing plants, retail departments, or repair centers.

M7100 Terminal



	M7324	M7310	M7208	M7100
Software				
DR1		✓	✓	
Compact DR2	✓	✓	✓	
Compact DR5	✓	✓	✓	✓
Modular DR2	✓	✓	✓	
DR3, DR4, DR5	✓	✓	✓	✓
Centrex, Centrex+	✓	✓	✓	✓
Accessories				
BLF		✓		
CAP	✓			
DCI-B		✓		
DCI-D	✓	✓	✓	✓

Description

Simply designed, the M7100 Basic Set delivers Norstar functionality and reliability to areas or users with low-set usage requirements.

Target Audience

Companies who want a simple, functional set in low traffic areas should consider the M7100.

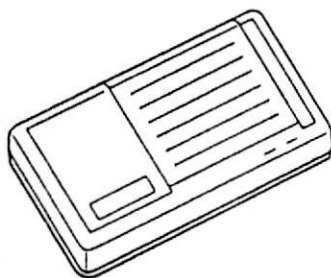
Applications

The M7100 provides phone coverage in areas where basic service is required, such as reception areas, lobbies, and office kitchens. Single line functionality on a Norstar proprietary set is provided.

Accessories

Enhanced Analog Terminal Adapter (EATA)
 Busy Lamp Field (BLF)
 Central Answering Position (CAP)
 Data Communications Interface (DCI)
 Station Auxiliary Power Supply (SAPS)
 Station Message Detail Recorder (SMDR)

Analog Terminal Adapter (ATA)



	ATA	EATA*
Software		
DR1	✓	✓
Compact DR2	✓	✓
Compact DR5	✓	✓
Modular DR2	✓	✓
DR3, DR4, DR5	✓	✓
Centrex, Centrex+	✓	✓

*EATA - Enhanced ATA

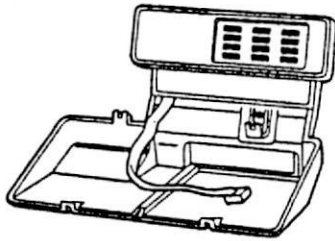
Description

Terminal Adapters come in two models: the Analog Terminal Adapter (ATA); and the Enhanced Analog Terminal Adapter (EATA). They convert Norstar digital interface to analog for communication with such analog devices as single line telephones, FAX machines, modems and answering machines. Single line sets can interface with Norstar system features such as Call Waiting, Call Forward, and many more.

Feature Comparison Chart

	ATA	EATA
Separate Power Supply	X	✓
Alternate Line	✓	✓
Call Forward	✓	✓
Call Park	X	✓
Call Pickup – Group or Directed	X	✓
Call Queuing/Waiting	X	✓
Camp	X	✓
Centrex/PBX Reach Through	X	✓
Conference	✓	✓
Hold – Exclusive	X	✓
Hold – Public	✓	✓
LNR	✓	✓
Line Pool Selection	X	✓
Link	X	✓
Page – General	✓	✓
Page – External	X	✓
Page – External/Internal	X	✓
Page – Internal	X	✓
Priority Call	X	✓
Privacy Control	X	✓
Reach Through – Timed Release	X	✓
Restriction Override	X	✓
Ring Again	✓	✓
Saved Number Redial	X	✓
Send Message	X	✓
System Speed Dial	✓	✓
Tones On	✓	✓
Transfer	X	✓
Trunk Answer	X	✓
Voice Call	X	✓
StarTalk – Access via DN	✓	✓
StarTalk – Mailbox access	X	✓
StarTalk – Leave message	X	✓
SMDR Account Codes	X	✓
CDR Account Codes	X	✓
Toll Restriction Improvements	X	✓

Busy Lamp Field



Software	
DR1	✓
Compact DR2	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓
Accessory	
BLF	
Terminals	
M7324	
M7310	✓
M7208	
M7100	

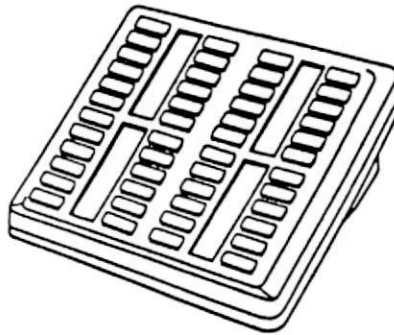
Description

The Busy Lamp Field creates an attendant position to monitor the status (busy or idle) of Direct Station Select (DSS) keys programmed onto the dual programmable buttons of the M7310 set to which it is attached. No additional power or wiring is required.

Target Audience

When a BLF is attached to an M7310, it becomes an excellent receptionist or secretary phone for smaller Norstar configurations where line and DSS capacity are limited.

Central Answering Position (CAP)



Software	
DR1	✓
Compact DR2*	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓
Accessory	
CAP	
Terminals	
M7324	✓
M7310	
M7208	
M7100	
* BLF only capability	

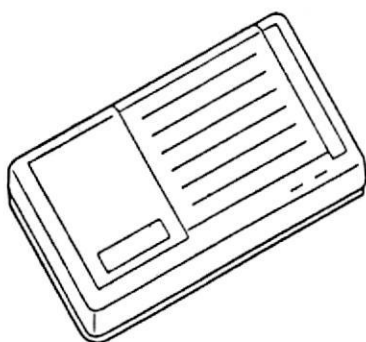
Description

Attached to an M7324, a Central Answering Position (CAP) module shows the status (busy or idle) for up to 48 more sets; up to two CAP modules can be added to any M7324 set. CAP module buttons can also be used to program features or autodial numbers. One Station Auxiliary Power Supply (SAPS) is required to power every two CAP modules.

Target Audience

Secretaries and receptionists with M7324 sets responsible for call coverage for many lines will find the CAP extremely useful. Secretaries, managers and others providing backup answering services will also improve their productivity using a CAP module, as will people requiring high feature usage or line access capabilities, such as telemarketing center managers.

Data Communications Interface (DCI)

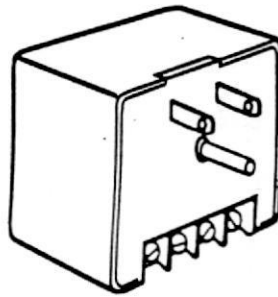


Software	
DR1	✓
Compact DR2	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓
Accessory	
DCI	
Terminals	
M7324	✓
M7310	✓
M7208	✓
M7100	✓

Description

The Data Communications Interface is offered in two models: the DCI-B replaces the base of an M7310 set; whereas the DCI-D connects to a terminal with the option of connecting to a Norstar set (M7100, M7324, M7310, or M7208). These Hayes-compatible modems support computer communications over Norstar digital intercom lines at up to 19,200 baud, and externally over analog lines at 300, 1200, or 2400 baud. With a DCI, voice and data calls can be simultaneous from a single Norstar station port over a single pair of twisted wires. Norstar's Autoreset Relocation feature makes it easy to relocate a DCI to any other station.

Station Auxiliary Power Supply (SAPS)



Software	
DR1	✓
Compact DR2	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓

Accessory	
SAPS	

Description

The Station Auxiliary Power Supply extends the loop length from 1,000 to 2,600 feet between a set or terminal and the KSU, using a dedicated cable to connect the two locations. One SAPS powers up to three sets at 2,600 feet or two CAP modules (which do not have to be connected to the same M7324 set) at 1,000 feet.

Target Audience

The Station Auxiliary Power Supply is ideal for Norstar installations in large facilities, such as shopping centers, warehouses, airports, and manufacturing floors.

Station Message Detail Recording (SMDR)



Software	
DR1	✓
Compact DR2	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓
Accessory	
SMDR	

Description

Station Message Detail Recording (SMDR) serves as an interface which lets the user track basic call detail information by: all calls; outgoing calls only; calls with an account code; or by long distance calls. Connected to any station port, it provides basic reports in Norstar or Meridian SL-1 format. The unit is the interface to import call detail information into Norstar PC Applications software.

Target Audience

Companies interested in gathering telephone activity data to monitor and manage their Norstar system will find SMDR beneficial.

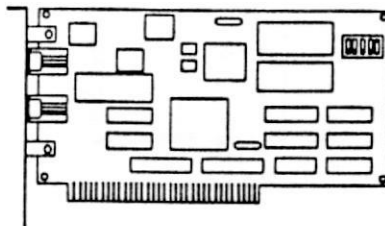
Applications

SMDR provides a simple billing process with account codes. System Administrators can review SMDR call data to develop practical call management procedures to minimize call problems.

Peripherals

- Personal Computer Interface (PCI)
- Norlink
- StarTalk (See Voice Mail Chapter)

Personal Computer Interface (PCI)



Software

DR1	✓
Compact DR2	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓

Peripheral

PCI
Norlink

Terminals

M7324	✓
M7310	✓
M7208	✓
M7100	✓

Description

The Personal Computer Interface (PCI) provides the hardware connection and software support to run Norstar software applications, such as Dial-by-Name and Call Accounting. Hardware comes in the form of a card that fits into a PC expansion slot. The software automatically configures your PC to allow one or more Norstar applications to operate simultaneously. Norstar system management improves significantly with access to the many time-saving Norstar software applications currently available.

Norlink

Software	
DR1	✓
Compact DR2	✓
Compact DR5	✓
Modular DR2	✓
DR3	✓
DR4	✓
DR5	✓
Centrex	✓
Centrex+	✓
Peripheral	
PCI	
Norlink	
Terminals	
M7324	✓
M7310	✓
M7208	✓
M7100	✓

Description:

Norlink performs the same function as the PCI Card. It supplies the hardware connection and software support to run Norstar applications such as Dial-by Name and Call Accounting. Norlink is an external device, and because of this, the hardware connection is made through a communication port. While both the PCI Card and Norlink reside at a station port, they each have a built-in teledapt jack which allows a set to share the port and use the set position.

TERMINALS

VOICE MAIL

Voice Mail

5

Norstar StarTalk voice mail products have been designed exclusively for Norstar to create a fully integrated voice processing and telephone system to improve businesses' call handling capabilities. To this end, two Norstar voice mail product enhancements were also developed: Custom Call Routing (CCR); and Audio Messaging Interchange Specification (AMIS) Networking.

StarTalk Voice Mail Systems

Three StarTalk models are currently available: 110; 165; and 385. The system offers a superior level of integration between StarTalk and Norstar which is referred to as "Intelligent Integration".

StarTalk performs the following functions:

- Call Routing (Auto Attendant)
- Telephone Answering
- Voice Messaging, and
- System Administration.

Technical Overview

	110	165	385
Base Ports	2	4	4
Ports Expanded Maximum	4	4	6 or 8
Message storage (minutes)	110	165	385
Message storage expanded	165	165	585
Hard Disk space (Mb)	40	50	105
Mailboxes	500	500	500
Compatibility:			
3x8 KSU (DR1)	X	X	X
Compact KSU (DR2, DR5)	√	√	√
Modular KSU (DR2 and up)	√	√	√

Benefits of Intelligent Integration

- As a result of digital technology, the immediate detection of line status (idle or busy) processes calls quickly and reliably.
- Non-dedicated voice ports provide fast StarTalk access.
- Users enjoy a fully integrated visual name directory.
- StarTalk administration is easy using Norstar sets.
- Digitized message storage increases StarTalk message storage capacity.
- StarTalk features can be quickly accessed using one-button Norstar programming.
- Operation is simple, because of fully integrated voice and visual prompts.
- StarTalk can alternate between two languages with the press of one button during any call.
- Rotary calls do not go astray; once timed out, they are forwarded to the StarTalk Operator and/or the General Delivery Mailbox.

StarTalk Functions and Features

Call Routing Features (Automated Attendant)

The Company Receptionist

- CCR single digit menus (menu levels)
- Call transfer: blind or screened
- Dual language system support
- Dynamic voice channel allocation
- Flexible business hours for company greetings
- Flexible line rings for auto answer
- Greeting tables, and
- Pre-recorded greetings storage.

Telephone Answering Features

The Personal Secretary

- Assigning target attendants
- Auto answer with personal greeting, and
- Primary and alternate greetings.

Voice Messaging Features

The Pink Message Slip – Sending Messages

- Automatic reply to internal messages
- Broadcast messages
- Express internal messaging
- Forward copy with or without comment
- Group distribution lists
- Message delivery options
- Name confirmation when sending
- Name directory or extension accessibility

The Pink Message Slip – Receiving Messages

- Envelope information
- External volume control
- Mailboxes: Personal, Guest and Information
- Message waiting notification
- Off premise message notification to telephone, pager, or intercom
- Playback controls
- Saved message queue and retention periods

System Administration Features

- Administrative Class of Service
- Change of Operator Password
- Remote System Administration
- Report Generation
- Special Mailboxes: General Delivery, Trouble, System Coordinator's
- System back-up and restore
- Trunk Answer On/Off

StarTalk Feature Comparison Chart

Hardware			
	1.5	1.6	2.0.1
110 - 2 port	✓	✓	✓
165 - 4 port	✓	✓	✓
385 - 4 port	✓	✓	✓
385 - 6 port	X	✓	✓
385 - 8 port	X	✓	✓
110 upgradeable to 165	✓	✓	✓
385 upgradeable to six or eight ports	X	✓	✓
Call Routing Features (Automated Attendant)			
	1.5	1.6	2.0.1
AA main menu prompts on/off	X	✓	✓
CCR single digit menu options	X	X	8
Dial 9 at AA to change language prompts	✓	✓	✓
Dual language system support	✓	✓	✓
Dynamic voice channel allocation	✓	✓	✓
Flexible business hours for company greetings	X	X	✓
Flexible line rings to AA			
- using Norstar DRT	X	✓	✓
- within StarTalk programming	X	X	✓
Greeting tables	4	4	4
Greeting messages storage	40	40	40
Simplified AA line answering administration	✓	✓	✓
Transfer to guest mailbox using extension	X	✓	✓
Transfers: blind or screened	✓	✓	✓
Transfers directly to personal greeting	X	X	✓
Transfers simplified (Feature 986)	X	X	✓
Trunk assignment maximum	80	80	184
Telephone Answering Features			
	1.5	1.6	2.0.1
Assigning target attendants	X	X	✓
Auto answer with personal greeting	X	X	✓
Personal primary greeting automatically chosen after recorded	X	✓	✓
Primary and alternate greetings	✓	✓	✓

Voice Messaging Features

	1.5	1.6	2.0.1
Sending Messages			
Broadcast messages	√	√	√
Express internal messaging	√	√	√
Forward copy with or without comment	X	X	√
Group distribution lists	9	9	99
Group list members (per list)	100	100	500
Group list global on/off	X	√	√
Group list leading digit administration	X	√	√
Group list view members	X	√	√
Message delivery options	X	X	√
Receiving Messages			
Dial 9 at mailbox to change language prompts	X	√	√
Envelope information	√	√	√
External volume control	X	X	√
Mailboxes maximum	200	200	500
Mailboxes: Guest	√	√	√
Mailboxes: Information	X	X	√
Mailbox name maximum characters	10	16	16
Mailbox number maximum digit length	2-4	2-7	2-7
Off premise message notification to			
- telephone, pager	X	X	√
- intercom	X	X	√
Return to AA on/off (using AA menu after leaving a message)	X	√	√
Saved message queue and retention periods	X	X	√
Zero as a leading digit in mailboxes	X	√	√

System Administration Features

	1.5	1.6	2.0.1
Assign the Year in the system clock	X	✓	✓
Administer DTMF recognition			
- from an RS232 terminal	X	✓	✓
- from a set	✓	✓	✓
Administration timeout (minutes)		3 min.	
Administration access via multiple sets	X	✓	✓
Administrative Class of Service	8	8	16
Baud Rates			
- Flexible via terminal/300 baud reset	✓	✓	✓
- Fixed at 300 baud	X	X	X
Compatibility with DR2	✓	✓	✓
Compatibility with DR3 and Centrex	X	✓	✓
Compatibility with DR4 or higher	X	X	✓
Field replaceable parts	✓	✓	✓
Flexible feature code assignment	X	X	✓
Remote System Administration	X	X	✓
Report Generation	✓	✓	✓
Password			
- Reset mailbox or system coordinator	✓	✓	✓
- Change or reset Operator	X	X	✓
Print CCR Tree configuration	X	X	✓
Special Mailboxes			
- General Delivery, Trouble, System Coordinator's			
System back-up and restore	✓	✓	✓
System enable/disable	✓	✓	✓
Terminal administration	X	X	✓
Trunk Answer On/Off	X	X	✓

Forward Copy with or without Comment

Mailbox messages can be forwarded to other mailboxes without rerecording the message.

This enables more comments to be attached to the original message.

Greeting Tables

Four tables are available for a company to customize the answering of its incoming lines; each table contains four greetings (morning, afternoon, evening and non-business).

Customers receive the appropriate time-of-day greeting. Also allows a company to customize greetings by department.

Group Distribution Lists

Created by the system coordinator, these lists allow the same message to be delivered to a group of users by entering only one address destination or distribution list number.

Time is saved in message preparation, production and especially delivery.

Mailboxes: Personal, Guest and Informational

There are several types of mailboxes available. Personal - a mailbox can be assigned to a particular person and extension number for their exclusive use.

The owner is able to receive detailed, confidential messages 24 hours a day.

Guest - This mailbox is useful for people who do not have a Norstar extension number, yet need StarTalk access.

This helps improve communications internally.

Informational - A business can play frequently-requested information only, with no message-taking capabilities.

Employees no longer have to repeat the same information to multiple callers, such as hours of business or the time of a performance.

Message Delivery Options - Normal

The message is delivered automatically (default).

Message Delivery Options - Certified

The sender receives confirmation when the message is read.

Message Delivery Options - Private

Messages can not be forwarded to another mailbox.

Message Delivery Options – Urgent

A message can be queued to play after broadcast messages, but before "normal" messages.

These four message delivery options exist to give the user increased control of how to deliver messages.

Message Waiting Notification

When new messages are received, "message for you" appears on the user's LCD display; when the mailbox is opened, the number of new and saved messages is heard.

This feature improves communications, as it eliminates the need to log on to check for new messages.

Name Confirmation when Sending

The name and number of the person or mailbox being contacted appears in the LCD display.

This eliminates delivery errors.

Name Directory or Extension Accessibility

Any StarTalk mailbox extension can be found by spelling the user's last name on the dial pad.

This increases a receptionist's productivity; faster processing of calls and improved customer service if the caller only knows the name of who they are calling and not the extension number.

Off-Premise Message Notification to Telephone, Pager, or Intercom

Users away from their office can be notified by telephone or pager (external) and intercom (internal) whenever a message arrives in their mailbox; the message can be accessed using touchtone phones. Messages are immediately sent to users wherever they are located, therefore improving both external and internal communications.

Playback Controls

Subscribers can move within or between messages, without listening to each message entirely. People have increased control while listening to their messages.

Prerecorded Greetings Storage

Up to 40 prerecorded greetings can be stored.

Time is saved because a system coordinator does not have to re-record new messages each day; messages remain consistent, thereby giving businesses a more professional image.

Primary and Alternate Greetings

A mailbox subscriber can switch between prerecorded primary and alternate greetings

This allows for greater flexibility.

AMIS Networking

Audio Messaging Interchange Specification (AMIS) is an optional feature that allows remote voice mail systems to communicate with each other using mailboxes. Any voice mail system designed according to AMIS standards can be included in the AMIS voice messaging communications network. (The StarTalk unit must be upgraded to 2.0.2 software).

AMIS Benefits

Enhanced Voice Mail Communications

- It is convenient to send messages to any location without considering time zones.
- Stand-alone voice mail systems can now communicate with other stand-alone units.

Improved Communication System

- Detailed, confidential messages replace the more expensive "telephone tag" approach.
- Remote delivery is as fast as local mailbox delivery.

Establishing a Network Location

- To establish an AMIS network location, the System Administrator sets these parameters:

SYSTEM PARAMETERS	WHICH CONTROL
Network or Site Identification Number	International access code, long distance access, country and area codes and the site telephone number
AMIS dialing parameters	Retry calling intervals
Calling block periods	Times when calls between locations cannot be completed
Outdialing channel configuration	Availability of StarTalk channels for outgoing calls
Network Delivery Mailboxes	Mailboxes for each site within the network

Sending Network Messages

- Network messages can be sent by Direct Addressing or Network Delivery mailboxes.
- Direct Addressing requires the user to manually enter the destination phone and mailbox numbers.
- A Network Delivery Mailbox simplifies communications to remote locations, allowing subscribers to simply enter the mailbox to send a message

Network Testing

- An AMIS Loopback mailbox can be created at an installation to test the system.
- It verifies the Site ID number and system readiness to receive network messages.

ACCESS Developer Program 6

The Norstar ACCESS Developer Program licenses Value-Added Developers to design customized PC applications for the Norstar system. The program provides a unique opportunity for Developers to design new and enhanced telephony solutions for Norstar customers. Licensed Developers are usually software development companies within the telephone industry or within particular vertical markets.

Knowing the software applications currently available and the companies involved with ACCESS, sales representatives can offer their customers customized applications designed specifically for the Norstar. If software is currently unavailable, a Developer can work with the customer to design a customized application.

The software can be distributed direct from the VAD to the customer or through the telephone company. Please check within your company for the current distribution and support policies.

The following directory gives current information about ACCESS Developers and applications.

*Software Developers = Value-Added Developers

TeleMagic

Developer

TeleMagic Canada Inc.
Toronto, Ontario, Canada
Gerry Brown
(416) 690-5611

Product

StarMagic: Telemarketing

Status

Released.

Product Description

Contact management software

- PC screen-based dialing without need for modems, ATAs, DCIs.
- Individual and network versions are available.
- Comes with Flexible Reporting, and import/export capabilities.
- Has a built-in word processor and a pop-up calendar.
- Helps individuals keep track of appointments, schedules, mailings, etc.

Lingo

Developer

Lingo Computer Design
Toronto, Ontario, Canada
John Chooklingo
(416) 593-5334

Distributor

N/A

Product

StarQuote: Stock Market Feed

Status

Released.

Product Description

- Inexpensive delivery of stock market information to all Norstar users.
- Provides quick answers to customer queries.

Innings

Developer

Innings Telecom, Inc.
Toronto, Ontario, Canada
Ed Cheung
(416) 470-7070

Distributor

Canadian Communications Products (CCP)
Vancouver, B.C., Canada
Ray Stevenson
(604) 263-9399

Product

ACD - Star

Status

Released.

Product Description

- Fully-integrated, economical Automatic Call Distribution (ACD) that includes:
 - System Status Display
 - Supervisor Messaging
 - Agent Group Functions
 - Call Distribution, and
 - Recorded Announcements.

Alphabetical Listing of StarTalk Features and Benefits

Administrative Class Of Service
StarTalk offers a set of administratable parameters which define a user's level of access. 16 COS are available.

This allows a company to control and manage users' access to StarTalk.

Assigning Target Attendants

Each mailbox owner can assign an extension as their dial-0 set. Customer service is improved, because transferred calls can be answered by individuals more familiar with the mailbox owner's schedule.

Auto Answer with Personal Greeting

After a preset number of rings, StarTalk answers calls with the personal greeting of the mailbox owner requesting the caller to leave a message.

Callers are given detailed information of the mailbox owner's whereabouts and provides options (i.e., leave a message or have the call forwarded to a receptionist).

Automatic Reply To Internal Messages

A mailbox owner can automatically reply to a message with one key stroke.

This saves time because there is no need to look up extension numbers.

Broadcast Messages

A message can be recorded by a system coordinator and sent to every mailbox; it is played automatically, then erased as soon as the subscriber ends the session. This feature improves internal communications by providing system wide messaging capabilities. Every mailbox owner gets the same message.

Call Transfer - Blind

A call can be transferred directly to an extension with ringing starting immediately.

Call processing is faster.

Call Transfer - Screened

Callers are first prompted to record their name, which is then played at the extension being called; the call is then accepted or rejected without the caller's knowledge.

A called party can avoid unnecessary interruptions.

Change of Operator Password

To improve security, a password can be changed from default "OPERATOR" (67372867) to any four-to-eight digit sequence.

In addition, personally chosen passwords are easier to remember.

Dual Language System Support

StarTalk operates in two languages that callers and users can switch between at either the auto attendant or personal greeting level of system prompts.

Companies can use the language of their business (English or French in Canada; English or Spanish in the U.S.).

Dynamic Voice Channel Allocation

StarTalk voice channels are not dedicated to an Automated Attendant or voice messaging.

Fast, efficient call processing results.

Envelope Information

By pressing "7" during or after a message, the receipt time and date of the message is given; for internal calls, the sender's name is also given.

Know exactly when messages were left.

Express Internal Messaging

Internal messages can be sent without opening a person's own mailbox; the sender's name and extension are automatically included.

Improves communication.

External Volume Control

Users listening to messages from outside the company can increase the playback volume by pressing ☐.

This feature eliminates message distortion, and ensures users will hear details correctly.

Flexible Business Hours for Company Greetings

Prerecorded morning, afternoon and evening greetings can match a company's business hours.

Customer service is improved by eliminating any confusion over hours of operation. Very efficient at routing internal communications.

Flexible Line Rings for Auto Answer

Calls are transferred to StarTalk after a preset number of rings. Users can customize the system to meet their individual needs.

Custom Call Routing (CCR)

CCR lets a user custom design and program an intelligent voice-prompted call routing system to enhance the automated attendant and call routing functions. Callers can route their calls to specific locations within the company, because CCR creates simplified dialing.

CCR Single-digit Access

Calls can be routed by pressing a unique single digit for each option, as designed and programmed by the user (i.e., for Sales, press 0).

Designing a CCR Path or Tree

CCR trees are designed using: menu points; information points; transfer points; leave message points; and destination types.

Menu Point

- A prerecorded menu of options is created.
- Each menu can provide up to eight options.

Information Point

- A prerecorded information message is played to the caller.
- After the message is played, the caller is routed according to destination type.

Transfer Point

- Transfer Point automatically transfers, blind or screened, a caller to an extension within the Norstar system.

Leave Message Point

- A caller is routed directly to a mailbox to leave a message.
- Once recorded, a caller can be routed according to destination type.

Destination Type

- Routing options include: Return to Home Menu; Return to Previous Level; or Disconnect Call.

ACCESS DEVELOPER
PROGRAMS

Cintech**Developer**

Cintech Telemanagement Inc.
Cincinnati, Ohio, U.S.A.
Diane Kamionka
(513) 861-2000

Distributor

N/A

Product(s)

Tele-Series Call Accounting - In development
Cinphony - ACD - Now Available
Dial-by-Name/Database Look-up- In development

Product Description

- Tele-Series Call Accounting Provides:
 - Reporting on incoming Call Number
 - Reporting of answered and abandoned calls with ringing time
 - Remote maintenance options for rate tables
 - Scheduled reporting and updating
 - Division/Department reporting, and
 - Prompting of users to enter account codes.
- Cinphony is an economical, fully-integrated ACD including:
 - System Status Display
 - Supervisor Messaging
 - Agent Group Functions
 - Call Distribution, and
 - Recorded Announcements
- Dial-by Name/Data base Look-up:
 - Is used to replace phone lists and to look up information on customers, based on an incoming or outgoing number.
 - Allows name changes from a PC or Norstar set.
 - Links the Norstar set to a database on a PC.

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